FORM 3

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL							**1. WELL NAME and NUMBER** NBU 921-22C4BS
2. TYPE OF WORK DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○							**3. FIELD OR WILDCAT** NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO							**5. UNIT or COMMUNITIZATION AGREEMENT NAME** NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.							**7. OPERATOR PHONE** 720 929-6587
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217							**9. OPERATOR E-MAIL** mary.mondragon@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 0147566		**11. MINERAL OWNERSHIP** FEDERAL ◉ INDIAN ○ STATE ○ FEE ○					**12. SURFACE OWNERSHIP** FEDERAL ○ INDIAN ◉ STATE ○ FEE ○
13. NAME OF SURFACE OWNER (if box 12 = 'fee')							**14. SURFACE OWNER PHONE (if box 12 = 'fee')**
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')							**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') Ute Tribe		**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS** YES ◉ (Submit Commingling Application) NO ○					**19. SLANT** VERTICAL ○ DIRECTIONAL ◉ HORIZONTAL ○

20. LOCATION OF WELL	**FOOTAGES**	**QTR-QTR**	**SECTION**	**TOWNSHIP**	**RANGE**	**MERIDIAN**
LOCATION AT SURFACE	360 FSL 2153 FWL	SESW	15	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	812 FNL 2065 FWL	NENW	22	9.0 S	21.0 E	S
At Total Depth	812 FNL 2065 FWL	NENW	22	9.0 S	21.0 E	S

21. COUNTY UINTAH	**22. DISTANCE TO NEAREST LEASE LINE (Feet)** 812	**23. NUMBER OF ACRES IN DRILLING UNIT** 160
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 370	**26. PROPOSED DEPTH** MD: 10413 TVD: 10100
27. ELEVATION - GROUND LEVEL 4827	**28. BOND NUMBER** WYB000291	**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE** Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**	☑ **COMPLETE DRILLING PLAN**
☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**	☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
☑ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**	☑ **TOPOGRAPHICAL MAP**

NAME Danielle Piernot	**TITLE** Regulatory Analyst	**PHONE** 720 929-6156
SIGNATURE	**DATE** 06/30/2009	**EMAIL** danielle.piernot@anadarko.com

API NUMBER ASSIGNED 43047505290000	**APPROVAL**  Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	10413		
Pipe	**Grade**	**Length**	**Weight**			
	Grade P-110 LT&C	10413	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	12.25	9.625	0	2615		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	2615	36.0			

'APIWellNo:43047505290000'

T9S, R21E, S.L.B.&M.

NW Cor. Sec. 15
Found 2006
Aluminum Cap with
Pile of Stones

Sec. 15

1/4 Cor.
Not Found

N0°02'W (G.L.O.)
N00°02'03"W – 5290.23' (Meas.)

N0°01'W (G.L.O.)

WELL LOCATION:
NBU 921–22C4BS
ELEV. UNGRADED GROUND = 4826.9'

NBU 921–22C4BS (Surface Position)
NAD 83 LATITUDE = 40.029808° (40° 01' 47.309")
LONGITUDE = 109.539619° (109° 32' 22.628")
NAD 27 LATITUDE = 40.029843° (40° 01' 47.436")
LONGITUDE = 109.538931° (109° 32' 20.150")

Well Surface
Position

2153'

360'

Found 2006
Aluminum Cap
With Fence Post

N89°35'05"W – 2642.95' (Meas.)

N89°57'W 79.96 (G.L.O.)

Found 2006
Aluminum Cap
with Stone

N00°17'32"E – 5284.34' (Meas.)

812'

Bottom
of Hole

2065'

2646.31' (Measured)
N00°03'12"E (Basis of Bearings)

NBU 921–22C4BS (Bottom Hole)
NAD 83 LATITUDE = 40.026594° (40° 01' 35.739")
LONGITUDE = 109.539932° (109° 32' 23.755")
NAD 27 LATITUDE = 40.026629° (40° 01' 35.866")
LONGITUDE = 109.539244° (109° 32' 21.277")

Found 2006
Aluminum Cap in
Pile of Stones

N0°02'W (G.L.O.)

Sec. 22

N89°47'40"W 5291.60' (Meas.)

S 1/4 Cor. Sec. 22
Found 2006 Aluminum
Cap with Stone Under
E/W Fence

Found 2006
Aluminum Cap in
Pile of Stones

N0°01'W (G.L.O.)

1000' 500' 0' 1000'

SCALE

N

NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S04°19'48"W 1174.33' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri–Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri–Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
No.362251
KOLBY R. KAY
STATE OF UTAH

REGISTERED LAND SURVEYOR
REGISTRATION No. 362251
STATE OF UTAH

Kerr–McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 921-22C4BS
WELL PLAT
812' FNL, 2065' FWL (Bottom Hole)
NE ¼ NW ¼ OF SECTION 22, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789–1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST – VERNAL, UTAH 84078

DATE SURVEYED: 11–13–08	SURVEYED BY: M.S.B.	SHEET
DATE DRAWN: 11–17–08	DRAWN BY: E.M.S.	4
SCALE: 1" = 1000'	Date Last Revised: 01–22–09	OF 13

'APIWellNo:43047505290000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 921-15N Pad
Well: NBU 921-22C4BS
Wellbore: OH
Design: Plan #1

Kerr McGee Oil and Gas Onshore LP

T M

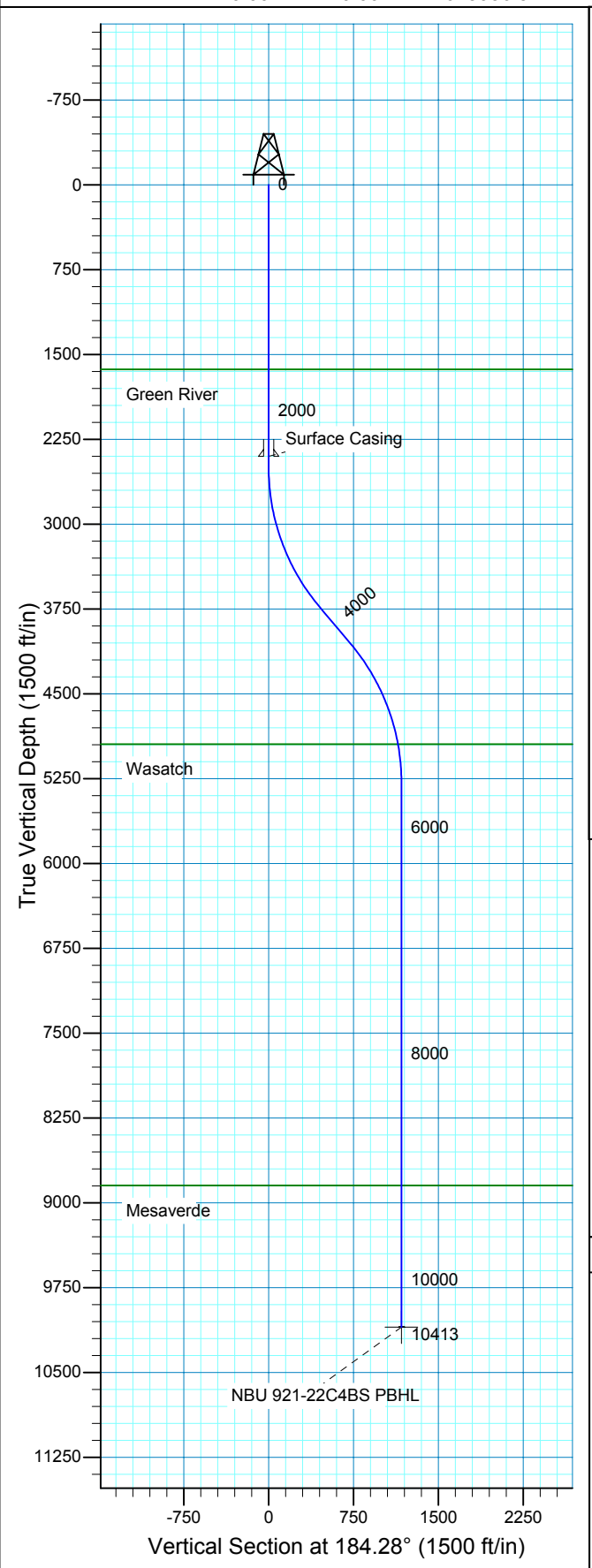
Azimuths to True North
Magnetic North: 11.37°

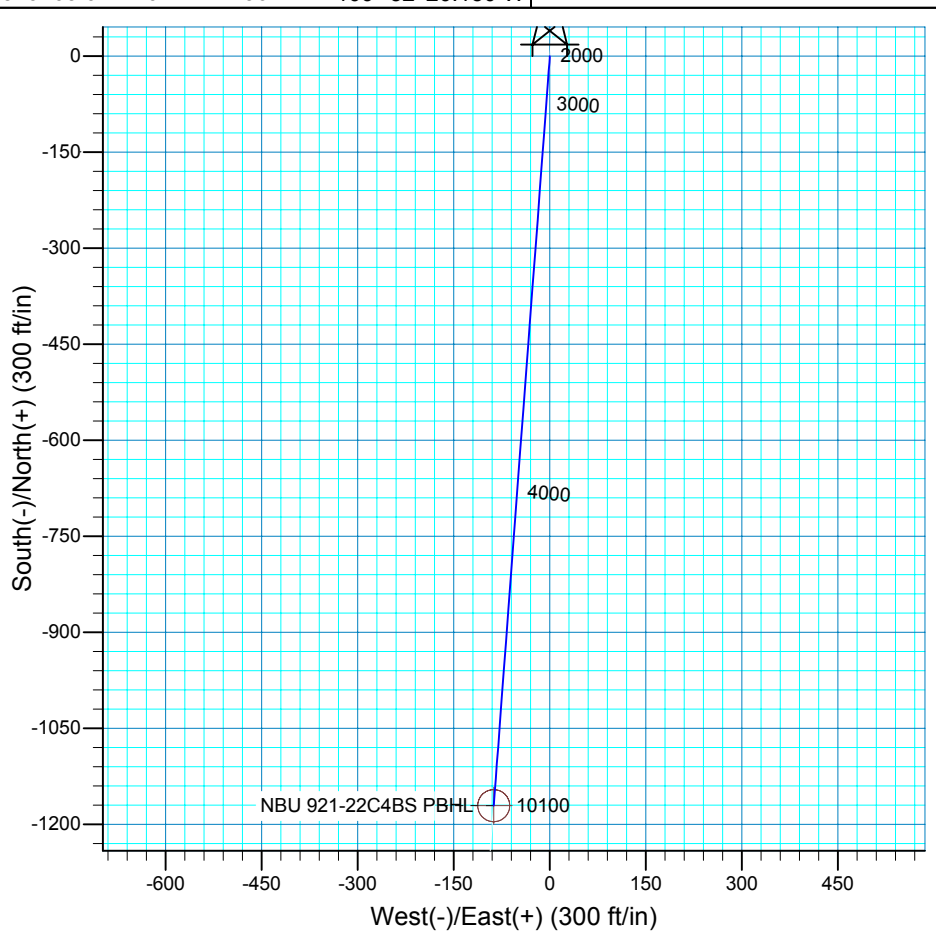
Magnetic Field
Strength: 52595.6snT
Dip Angle: 65.95°
Date: 2009/02/27
Model: IGRF2005-10

WELL DETAILS: NBU 921-22C4BS

GL 4826' & RKB 18' @ 4844.00ft 4826.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	623936.57	2549103.01	40° 1' 47.436 N	109° 32' 20.150 W





Plan: Plan #1 (NBU 921-22C4BS/OH)

Created By: Julie Cruse Date: 2009-03-06

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: Sec 1 T10S RE21E
System Datum: Mean Sea Level
Local North: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	
3833.33	40.00	184.28	3727.63	-445.57	-33.37	3.00	184.28	446.82	
4269.37	40.00	184.28	4061.66	-725.07	-54.30	0.00	0.00	727.10	
5602.70	0.00	0.00	5289.29	-1170.65	-87.67	3.00	180.00	1173.92	
10413.41	0.00	0.00	10100.00	-1170.65	-87.67	0.00	0.00	1173.92	NBU 921-22C4BS PBHL

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 921-15N Pad
NBU 921-22C4BS
OH

Plan: Plan #1

Standard Planning Report

06 March, 2009

'APIWellNo:43047505290000'

Scientific Drilling
Rocky Mountain Operations

Scientific Drilling
Planning Report

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Site:	NBU 921-15N Pad	**North Reference:**	True
Well:	NBU 921-22C4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project Uintah County, UT NAD27

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site NBU 921-15N Pad, Sec 1 T10S RE21E

Site Position:		**Northing:**	623,937.73 ft	**Latitude:**	40° 1' 47.443 N
From:	Lat/Long	**Easting:**	2,549,122.98 ft	**Longitude:**	109° 32' 19.893 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	in	**Grid Convergence:**	1.26 °

Well NBU 921-22C4BS, 360' FSL 2153' FWL

Well Position	**+N/-S**	0.00 ft	**Northing:**	623,936.57 ft	**Latitude:**	40° 1' 47.436 N
	+E/-W	0.00 ft	**Easting:**	2,549,103.01 ft	**Longitude:**	109° 32' 20.150 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,826.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2009/02/27	11.37	65.95	52,596

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	184.28

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,833.33	40.00	184.28	3,727.63	-445.57	-33.37	3.00	3.00	0.00	184.28	
4,269.37	40.00	184.28	4,061.66	-725.07	-54.30	0.00	0.00	0.00	0.00	
5,602.70	0.00	0.00	5,289.29	-1,170.65	-87.67	3.00	-3.00	0.00	180.00	
10,413.41	0.00	0.00	10,100.00	-1,170.65	-87.67	0.00	0.00	0.00	0.00	NBU 921-22C4BS PB

Scientific Drilling
Rocky Mountain Operations

Scientific Drilling
Planning Report

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Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Site:	NBU 921-15N Pad	**North Reference:**	True
Well:	NBU 921-22C4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,632.00	0.00	0.00	1,632.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	3.00	184.28	2,599.95	-2.61	-0.20	2.62	3.00	3.00	0.00
2,700.00	6.00	184.28	2,699.63	-10.43	-0.78	10.46	3.00	3.00	0.00
2,800.00	9.00	184.28	2,798.77	-23.45	-1.76	23.51	3.00	3.00	0.00
2,900.00	12.00	184.28	2,897.08	-41.62	-3.12	41.74	3.00	3.00	0.00
3,000.00	15.00	184.28	2,994.31	-64.90	-4.86	65.08	3.00	3.00	0.00
3,100.00	18.00	184.28	3,090.18	-93.21	-6.98	93.48	3.00	3.00	0.00
3,200.00	21.00	184.28	3,184.43	-126.50	-9.47	126.85	3.00	3.00	0.00
3,300.00	24.00	184.28	3,276.81	-164.65	-12.33	165.12	3.00	3.00	0.00
3,400.00	27.00	184.28	3,367.06	-207.58	-15.55	208.16	3.00	3.00	0.00
3,500.00	30.00	184.28	3,454.93	-255.16	-19.11	255.87	3.00	3.00	0.00
3,600.00	33.00	184.28	3,540.18	-307.26	-23.01	308.12	3.00	3.00	0.00
3,700.00	36.00	184.28	3,622.59	-363.73	-27.24	364.75	3.00	3.00	0.00
3,800.00	39.00	184.28	3,701.91	-424.43	-31.78	425.62	3.00	3.00	0.00
3,833.33	40.00	184.28	3,727.63	-445.57	-33.37	446.82	3.00	3.00	0.00
3,900.00	40.00	184.28	3,778.70	-488.31	-36.57	489.67	0.00	0.00	0.00
4,000.00	40.00	184.28	3,855.31	-552.41	-41.37	553.95	0.00	0.00	0.00
4,100.00	40.00	184.28	3,931.91	-616.51	-46.17	618.23	0.00	0.00	0.00
4,200.00	40.00	184.28	4,008.52	-680.61	-50.97	682.51	0.00	0.00	0.00
4,269.37	40.00	184.28	4,061.66	-725.07	-54.30	727.10	0.00	0.00	0.00
4,300.00	39.08	184.28	4,085.28	-744.52	-55.75	746.60	3.00	-3.00	0.00
4,400.00	36.08	184.28	4,164.52	-805.33	-60.31	807.58	3.00	-3.00	0.00
4,500.00	33.08	184.28	4,246.84	-861.92	-64.55	864.33	3.00	-3.00	0.00
4,600.00	30.08	184.28	4,332.02	-914.14	-68.46	916.70	3.00	-3.00	0.00
4,700.00	27.08	184.28	4,419.83	-961.84	-72.03	964.53	3.00	-3.00	0.00

Scientific Drilling
Rocky Mountain Operations

Scientific Drilling
Planning Report

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Site:	NBU 921-15N Pad	**North Reference:**	True
Well:	NBU 921-22C4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,800.00	24.08	184.28	4,510.01	-1,004.89	-75.25	1,007.71	3.00	-3.00	0.00
4,900.00	21.08	184.28	4,602.34	-1,043.18	-78.12	1,046.10	3.00	-3.00	0.00
5,000.00	18.08	184.28	4,696.54	-1,076.60	-80.62	1,079.61	3.00	-3.00	0.00
5,100.00	15.08	184.28	4,792.37	-1,105.05	-82.75	1,108.15	3.00	-3.00	0.00
5,200.00	12.08	184.28	4,889.57	-1,128.47	-84.51	1,131.62	3.00	-3.00	0.00
5,257.54	10.36	184.28	4,946.00	-1,139.63	-85.34	1,142.82	3.00	-3.00	0.00
Wasatch									
5,300.00	9.08	184.28	4,987.85	-1,146.77	-85.88	1,149.99	3.00	-3.00	0.00
5,400.00	6.08	184.28	5,086.97	-1,159.93	-86.86	1,163.18	3.00	-3.00	0.00
5,500.00	3.08	184.28	5,186.64	-1,167.89	-87.46	1,171.16	3.00	-3.00	0.00
5,600.00	0.08	184.28	5,286.59	-1,170.64	-87.67	1,173.92	3.00	-3.00	0.00
5,602.70	0.00	0.00	5,289.29	-1,170.65	-87.67	1,173.92	3.00	-3.00	0.00
5,700.00	0.00	0.00	5,386.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
5,800.00	0.00	0.00	5,486.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
5,900.00	0.00	0.00	5,586.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,000.00	0.00	0.00	5,686.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,100.00	0.00	0.00	5,786.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,200.00	0.00	0.00	5,886.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,300.00	0.00	0.00	5,986.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,400.00	0.00	0.00	6,086.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,500.00	0.00	0.00	6,186.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,600.00	0.00	0.00	6,286.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,700.00	0.00	0.00	6,386.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,800.00	0.00	0.00	6,486.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
6,900.00	0.00	0.00	6,586.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,000.00	0.00	0.00	6,686.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,100.00	0.00	0.00	6,786.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,200.00	0.00	0.00	6,886.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,300.00	0.00	0.00	6,986.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,400.00	0.00	0.00	7,086.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,500.00	0.00	0.00	7,186.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,600.00	0.00	0.00	7,286.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,700.00	0.00	0.00	7,386.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,800.00	0.00	0.00	7,486.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
7,900.00	0.00	0.00	7,586.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,000.00	0.00	0.00	7,686.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,100.00	0.00	0.00	7,786.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,200.00	0.00	0.00	7,886.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,300.00	0.00	0.00	7,986.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,400.00	0.00	0.00	8,086.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,500.00	0.00	0.00	8,186.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,600.00	0.00	0.00	8,286.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,700.00	0.00	0.00	8,386.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,800.00	0.00	0.00	8,486.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
8,900.00	0.00	0.00	8,586.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,000.00	0.00	0.00	8,686.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,100.00	0.00	0.00	8,786.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,160.41	0.00	0.00	8,847.00	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
Mesaverde									
9,200.00	0.00	0.00	8,886.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,300.00	0.00	0.00	8,986.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,400.00	0.00	0.00	9,086.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,500.00	0.00	0.00	9,186.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00

Scientific Drilling
Rocky Mountain Operations

Scientific Drilling
Planning Report

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Site:	NBU 921-15N Pad	**North Reference:**	True
Well:	NBU 921-22C4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,600.00	0.00	0.00	9,286.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,700.00	0.00	0.00	9,386.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,800.00	0.00	0.00	9,486.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
9,900.00	0.00	0.00	9,586.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
10,000.00	0.00	0.00	9,686.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
10,100.00	0.00	0.00	9,786.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
10,200.00	0.00	0.00	9,886.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
10,300.00	0.00	0.00	9,986.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
10,400.00	0.00	0.00	10,086.59	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00
10,413.41	0.00	0.00	10,100.00	-1,170.65	-87.67	1,173.92	0.00	0.00	0.00

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 921-22C4BS PBHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	10,100.00	-1,170.65	-87.67	622,764.29	2,549,041.03	40° 1' 35.866 N	109° 32' 21.277 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,400.00	2,400.00	Surface Casing	9.625	13.500

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,632.00	1,632.00	Green River		0.00	
5,257.54	4,946.00	Wasatch		0.00	
9,160.41	8,847.00	Mesaverde		0.00	

NBU 921-22C4BS
Pad: NBU 921-15N
Surface: 360' FSL, 2,153' FWL (SE/4SW/4) Sec. 15
BHL: 812' FNL 2,065' FWL (NE/4NW/4) Sec.22

Uintah, Utah
Mineral Lease: UTU 0147566

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,632'	
Birds Nest	1,912'	Water
Mahogany	2,415'	Water
Wasatch	4,946'	Gas
Mesaverde	7,914'	Gas
MVU2	8,847'	Gas
MVL1	9,435'	Gas
TVD	10,100'	
TD	10,413'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,413' TD, approximately equals 6,379 psi (calculated at 0.61 psi/foot).

Maximum anticipated surface pressure equals approximately 3,966 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

'APIWellNo:43047505290000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	June 29, 2009
WELL NAME	**NBU 921-22C4BS**			TD	10,100' TVD 10,413' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	4,826'
SURFACE LOCATION	SE/4 SW/4	360' FSL	2,153' FWL	Sec 15	T 9S	R 21E	
	Latitude:	40.029808	Longitude:	-109.539619		NAD 83	
BTM HOLE LOCATION	NE/4 NW/4	812' FNL	2,065' FWL	Sec 22	T 9S	R 21E	
	Latitude:	40.026594	Longitude:	-109.539932		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Tribe (Surface), UDOGM Tri-County Health Dept.						

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		20'		14"	
			12-1/4"	9-5/8", 36#, J-55, LTC	Air mist

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @ 1,632'

Top of Birds Nest @ 1,912

Mahogany @ 2,415

Preset f/ GL @ 2,615' MD

Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @ 4,946'

Mud logging program TBD

Cased hole logging program from TD - surf csg

7-7/8"	4-1/2" 11.6# I-180 & P-110 or equivalent LTC csg	Water / Fresh Water Mud 8.3-12.0 ppg

Mverde @ 7,914' TVD

MVU2 @ 8,847' TVD

MVU1 @ 9,435' TVD

Max anticipated Mud required 12.0 ppg

TD @ 10,100' TVD 10,413' MD

'APIWellNo:43047505290000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2,615	36.00	J-55	LTC	0.84	1.65	6.12
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	9,963	11.60	I-80	LTC	1.91	1.09	2.04
								10,690	8,650	279,000
	4-1/2"	9,963	to	10,413	11.60	HCP-110	LTC	107.98	1.37	65.45

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,966 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.0 ppg) 0.61 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,379 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	2,115'	65/35 Poz + 6% Gel + 10 pps gilsonite	500	35%	12.60	1.81
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,443'	Premium Lite II + 3% KCl + 0.25 pps	420	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,970'	50/50 Poz/G + 10% salt + 2% gel	1,460	40%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained
*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

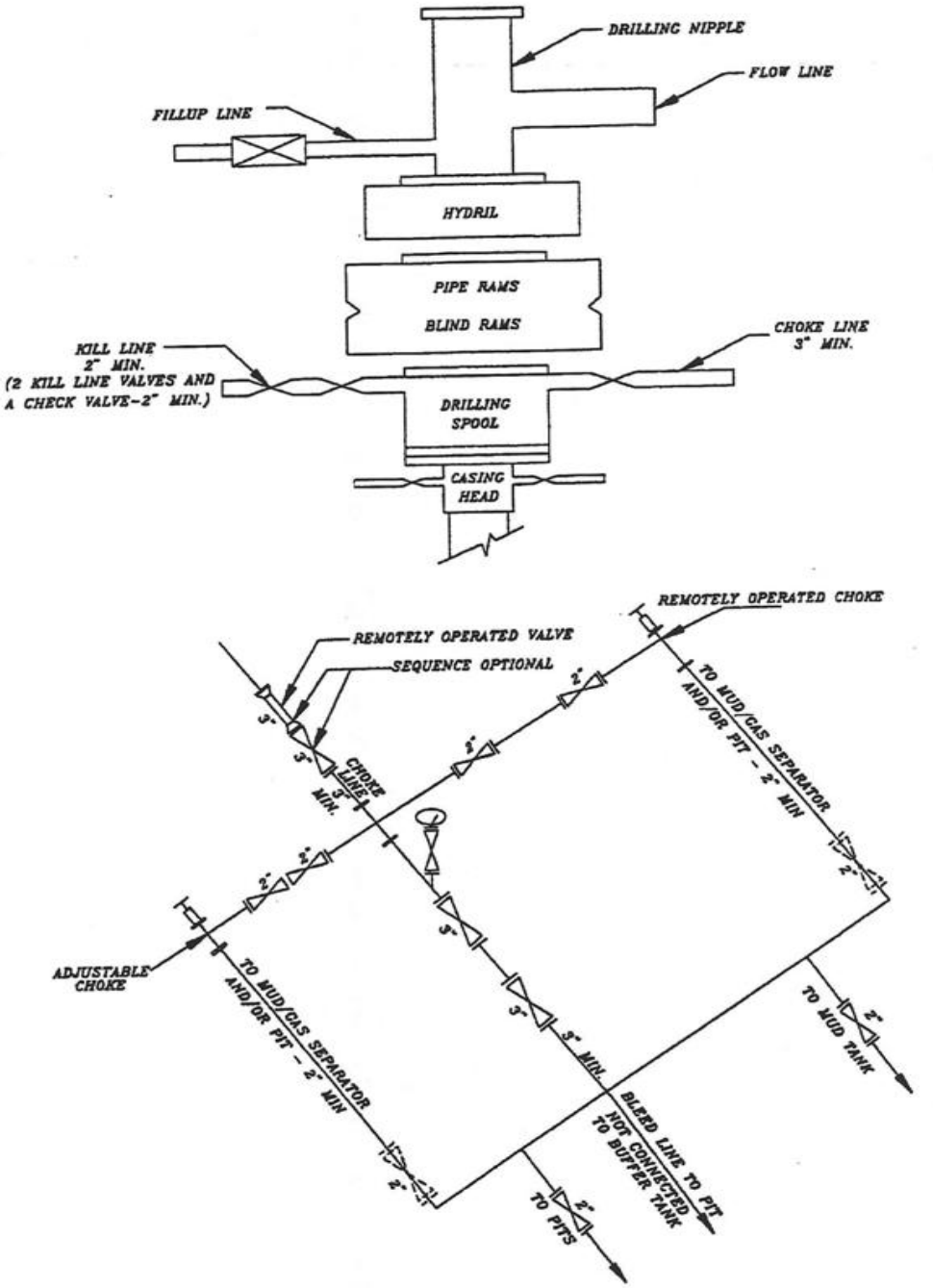
Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

EXHIBIT A
NBU 921-22C4BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047505290000'

WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD – NBU 921-15N

RELATIVE COORDINATES
From Surface Position to Bottom Hole

WELL	NORTH	EAST
921-22D1BS	-574'	-1274'
921-22D1CS	-914'	-1324'
921-22C1CS	-804'	-62'
921-22C4BS	-1171'	-89'

SURFACE POSITION FOOTAGES:

NBU 921-22D1BS
357' FSL, 2093' FWL

NBU 921-22D1CS
358' FSL, 2113' FWL

NBU 921-22C1CS
359' FSL, 2133' FWL

NBU 921-22C4BS
360' FSL, 2153' FWL

NBU 921-15N (Existing Well Head)
360' FSL, 2173' FWL

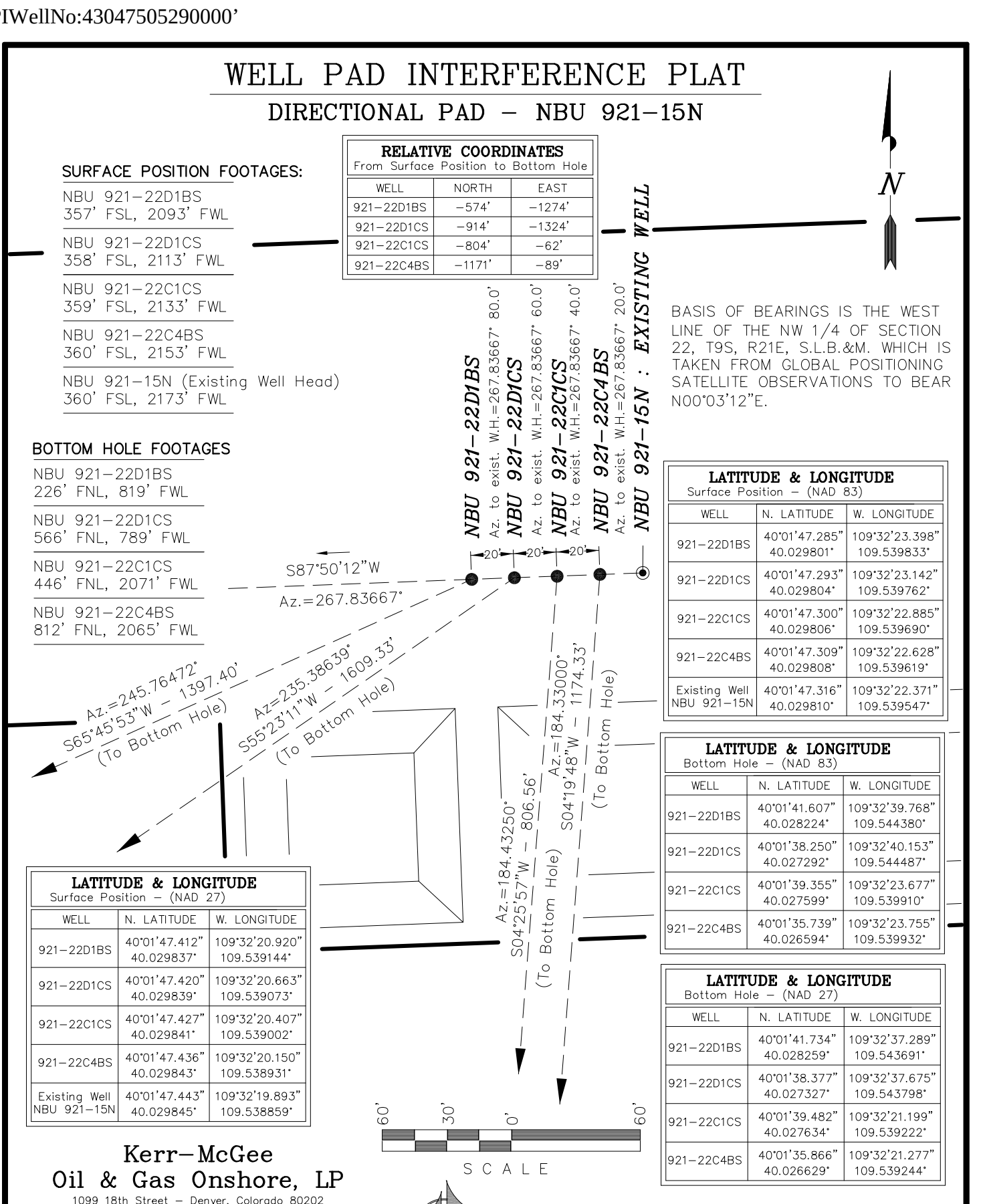
BOTTOM HOLE FOOTAGES

NBU 921-22D1BS
226' FNL, 819' FWL

NBU 921-22D1CS
566' FNL, 789' FWL

NBU 921-22C1CS
446' FNL, 2071' FWL

NBU 921-22C4BS
812' FNL, 2065' FWL



BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 22, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°03'12"E.

LATITUDE & LONGITUDE
Surface Position – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
921-22D1BS	40°01'47.285" 40.029801°	109°32'23.398" 109.539833°
921-22D1CS	40°01'47.293" 40.029804°	109°32'23.142" 109.539762°
921-22C1CS	40°01'47.300" 40.029806°	109°32'22.885" 109.539690°
921-22C4BS	40°01'47.309" 40.029808°	109°32'22.628" 109.539619°
Existing Well NBU 921-15N	40°01'47.316" 40.029810°	109°32'22.371" 109.539547°

LATITUDE & LONGITUDE
Bottom Hole – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
921-22D1BS	40°01'41.607" 40.028224°	109°32'39.768" 109.544380°
921-22D1CS	40°01'38.250" 40.027292°	109°32'40.153" 109.544487°
921-22C1CS	40°01'39.355" 40.027599°	109°32'23.677" 109.539910°
921-22C4BS	40°01'35.739" 40.026594°	109°32'23.755" 109.539932°

LATITUDE & LONGITUDE
Surface Position – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
921-22D1BS	40°01'47.412" 40.029837°	109°32'20.920" 109.539144°
921-22D1CS	40°01'47.420" 40.029839°	109°32'20.663" 109.539073°
921-22C1CS	40°01'47.427" 40.029841°	109°32'20.407" 109.539002°
921-22C4BS	40°01'47.436" 40.029843°	109°32'20.150" 109.538931°
Existing Well NBU 921-15N	40°01'47.443" 40.029845°	109°32'19.893" 109.538859°

LATITUDE & LONGITUDE
Bottom Hole – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
921-22D1BS	40°01'41.734" 40.028259°	109°32'37.289" 109.543691°
921-22D1CS	40°01'38.377" 40.027327°	109°32'37.675" 109.543798°
921-22C1CS	40°01'39.482" 40.027634°	109°32'21.199" 109.539222°
921-22C4BS	40°01'35.866" 40.026629°	109°32'21.277" 109.539244°

Kerr-McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
LOCATED IN SECTION 15, T9S, R21E, S.L.B.&M. UINTAH COUNTY, UTAH.

CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

DATE SURVEYED: 11-13-08	SURVEYED BY: M.S.B.
DATE DRAWN: 11-17-08	DRAWN BY: E.M.S.
	REVISED: 01-22-09

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078

’APIWellNo:43047505290000’

EXISTING ACCESS ROAD

4810 4820 4830 4840

A - A'

TOPSOIL STOCKPILE

4 C16.3

160' 170' 100' 10'

2 F11.8 3 F0.7 A C3.5 B C15.2

EXISTING WELL PAD

RESERVE PIT AND EXCESS CUT STOCKPILE

250' 250'

RESERVE PIT
10' DEPTH
SLOPE 2:1

BOILER

EXISTING NBU 921-15N

DIESEL TANK GENERATOR MUD PUMP 1 MUD PUMP 2 MUD TANK

22C4BS 22C1CS 22D1CS 22D1BS

20' 20' 20' 20'

WATER TANK SHAKER

W C0.5 D C0.9 C C12.4

B B'

1 F6.1 5 C13.2

EXISTING TANK AND BERM

PIPERACKS PIPETUBS

20' 100'

E C0.8 F C12.5

140' 100'

BACKFLOW PIT
10' DEPTH
SLOPE 2:1

CUT FILL

EXISTING SEPERATOR

DERRICK STAND

EXISTING METHANOL TANK

H C5.5 G C10.9

10' 110'

4840

7 C4.9 6 C11.3

110'

TOPSOIL STOCKPILE

250'

10 F7.4 9 F0.7 8 C1.9

160' 60'

TOPSOIL STOCKPILE

4820 4830

A

K:\ANADARKO\2008_27_NBU_Directional_Wells\DWGS\NBU_DIRECTIONAL_JAN_FEB_2009_CESI.dwg, 2/9/2009 3:28:00 PM, PDF-XChange for AcroPlot Pro

WELL PAD NBU 921-15N QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 4,826.5'
FINISHED GRADE ELEVATION = 4,826.0'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 18,035 C.Y.
TOTAL FILL FOR WELL PAD = 8,842 C.Y.
TOPSOIL @ 6" DEPTH = 2,234 C.Y.
EXCESS MATERIAL = 9,193 C.Y.
TOTAL DISTURBANCE = 4.03 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,730 BARRELS
RESERVE PIT VOLUME
+/- 7,720 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 9,490 BARRELS
BACKFLOW PIT VOLUME
+/- 2,660 CY

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

HORIZONTAL 0 30 60 1" = 60'

2' CONTOURS

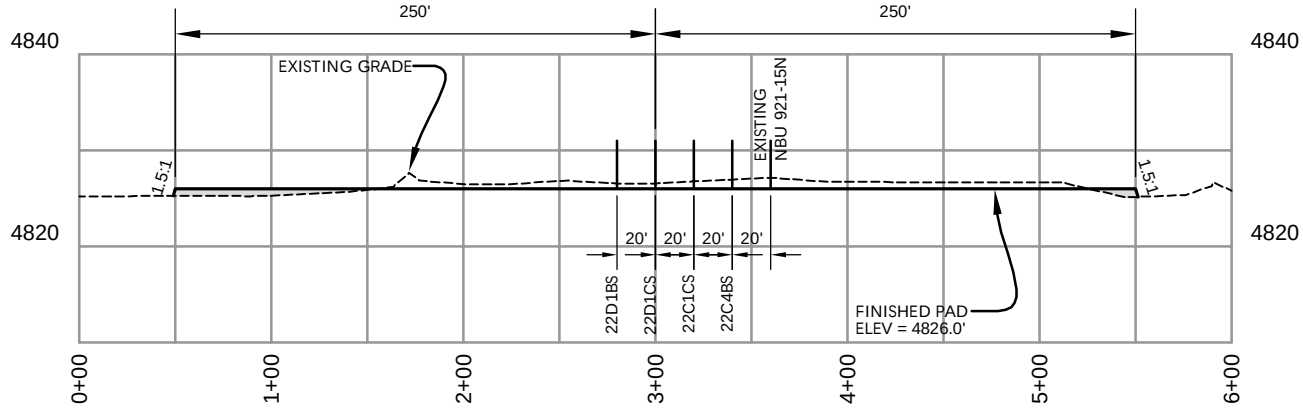
KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - LOCATION LAYOUT
NBU 921-22D1BS, NBU 921-22D1CS,
NBU 921-22C1CS, NBU 921-22C4BS
LOCATED IN SECTION 15, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

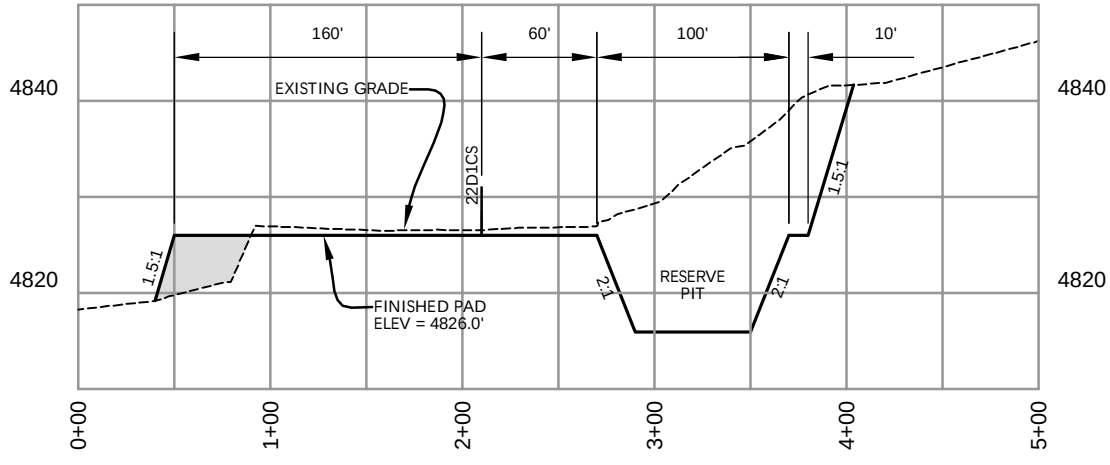
609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=60'	Date: 2/9/09	SHEET NO:
REVISED:	BY DATE	6 6 OF 13

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

KERR-MCGEE OIL & GAS ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - CROSS SECTIONS
NBU 921-22D1BS, NBU 921-22D1CS,
NBU 921-22C1CS, NBU 921-22C4BS
LOCATED IN SECTION 15, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100'	Date: 2/9/09	SHEET NO: 7	7 OF 13
REVISED:	BY DATE		

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

Timberline Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078 (435) 789-1365

'APIWellNo:43047505290000'
K:\ANADARKO\2008_27_NBU_Directional_Wells\DWGS\NBU_DIRECTIONAL_JAN_FEB_2009_CESI.dwg, 2/9/2009 3:33:36 PM, PDF-XChange for AcroPlot Pro

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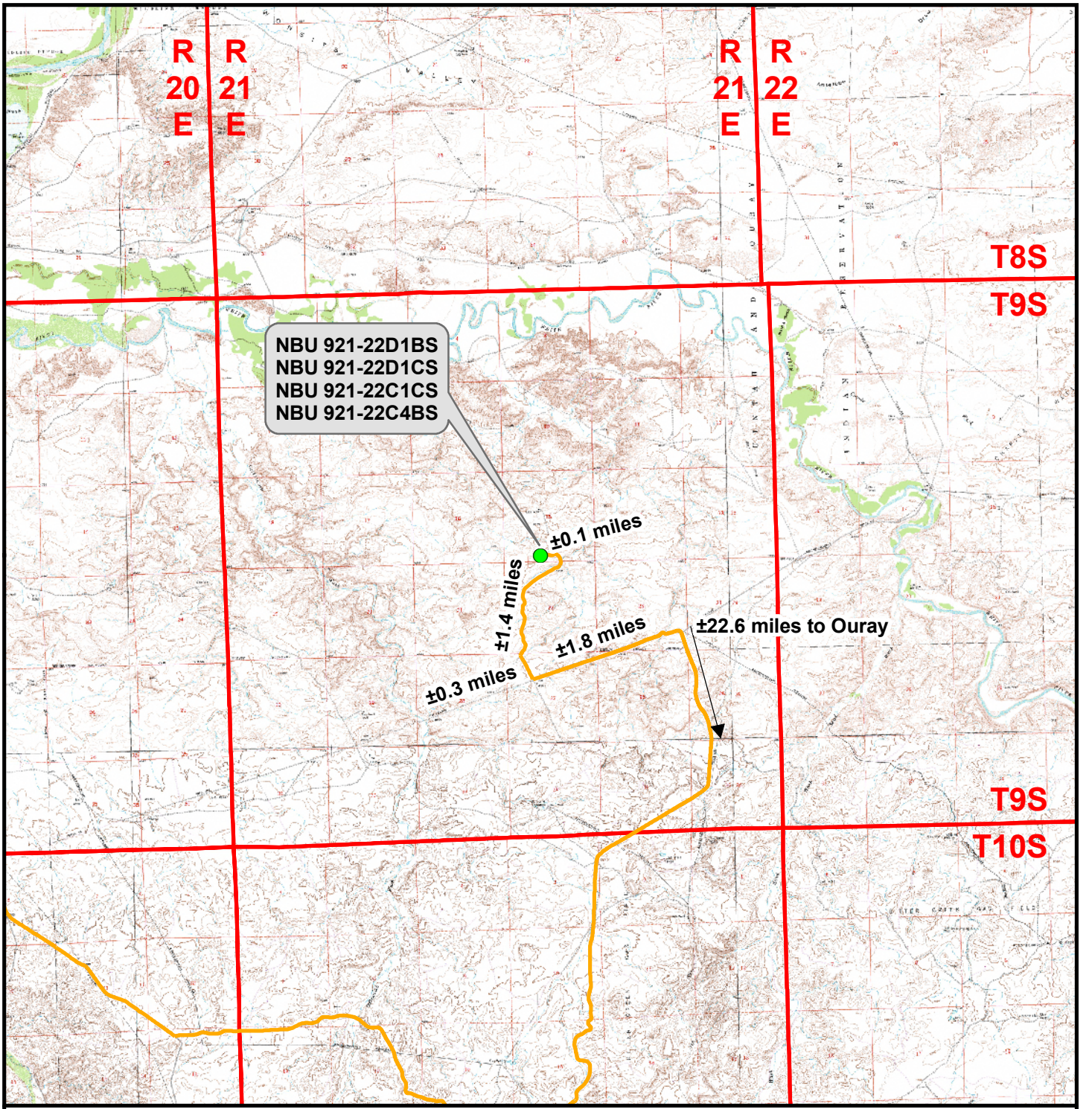


Legend

- Proposed Well Location
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

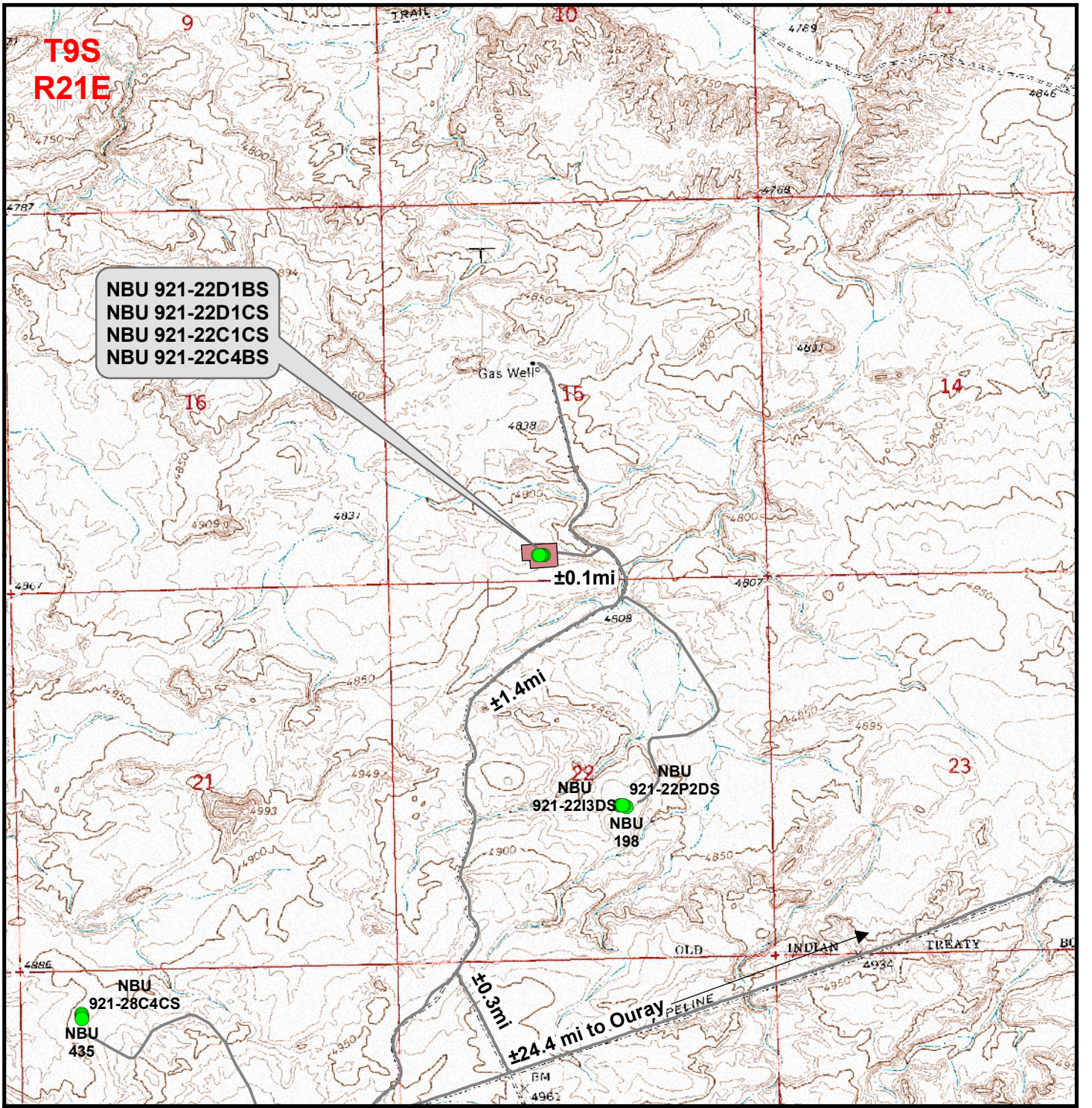
NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Topo A
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central	Sheet No: 9	9 of 13
Drawn: JELo	Date: 10 Feb 2009		
Revised:	Date:		

’APIWellNo:43047505290000’



Legend

Well - Proposed | Well Pad | Road - Proposed | Road - Existing

Total Proposed Road Length: ±0ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

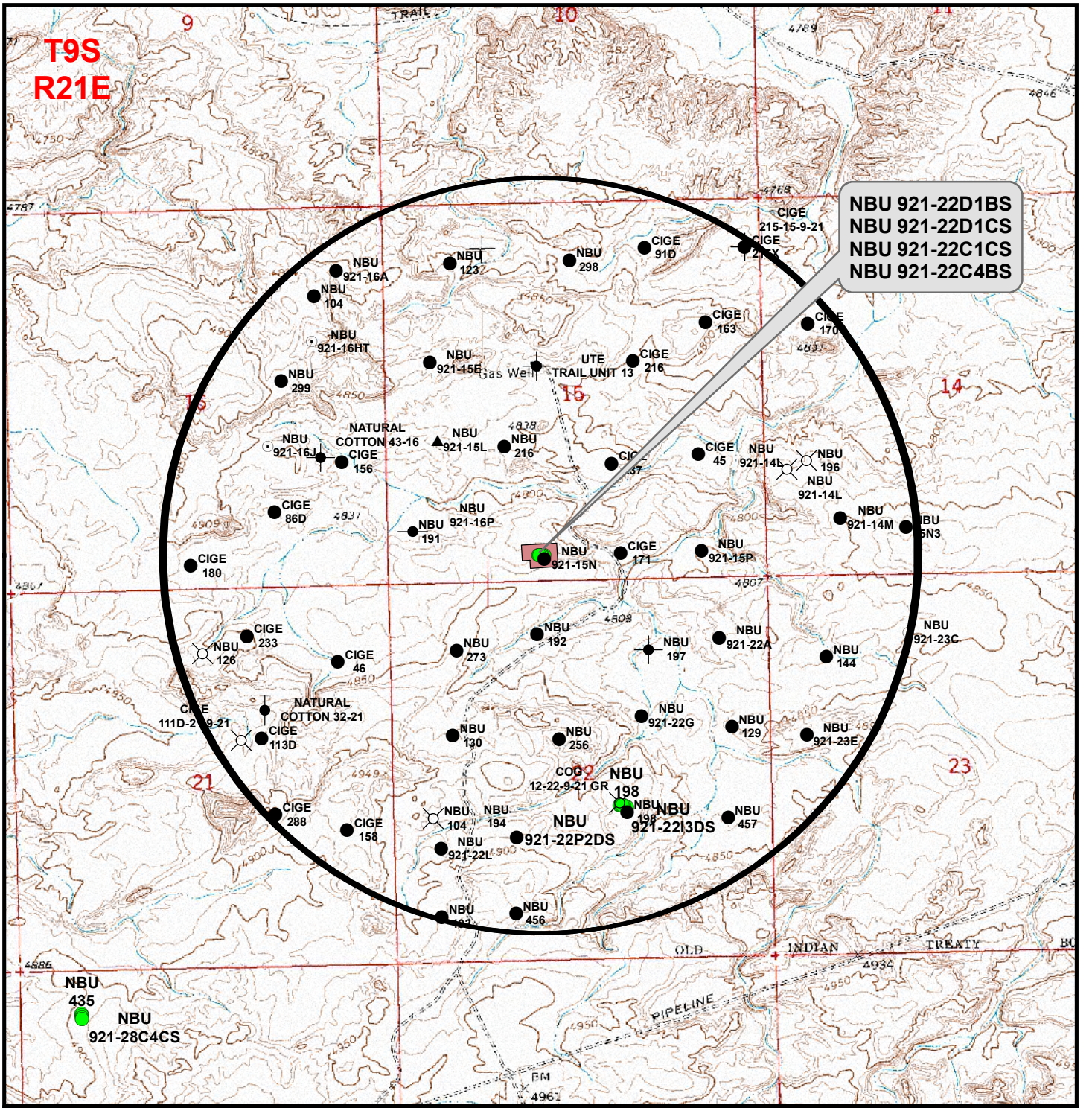
NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Topo B
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No: 10	10 of 13
Drawn: JELo	Date: 10 Feb 2009		
Revised:	Date:		

'APIWellNo:43047505290000'



Legend

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Well - Proposed
- Well - 1 Mile Radius
- Well Pad
- Producing
- Approved permit (APD); not yet spudded
- Spudded (Drilling commenced: Not yet comple
- Location Abandoned
- Temporarily-Abandoned
- Plugged and Abandoned
- Shut-In

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

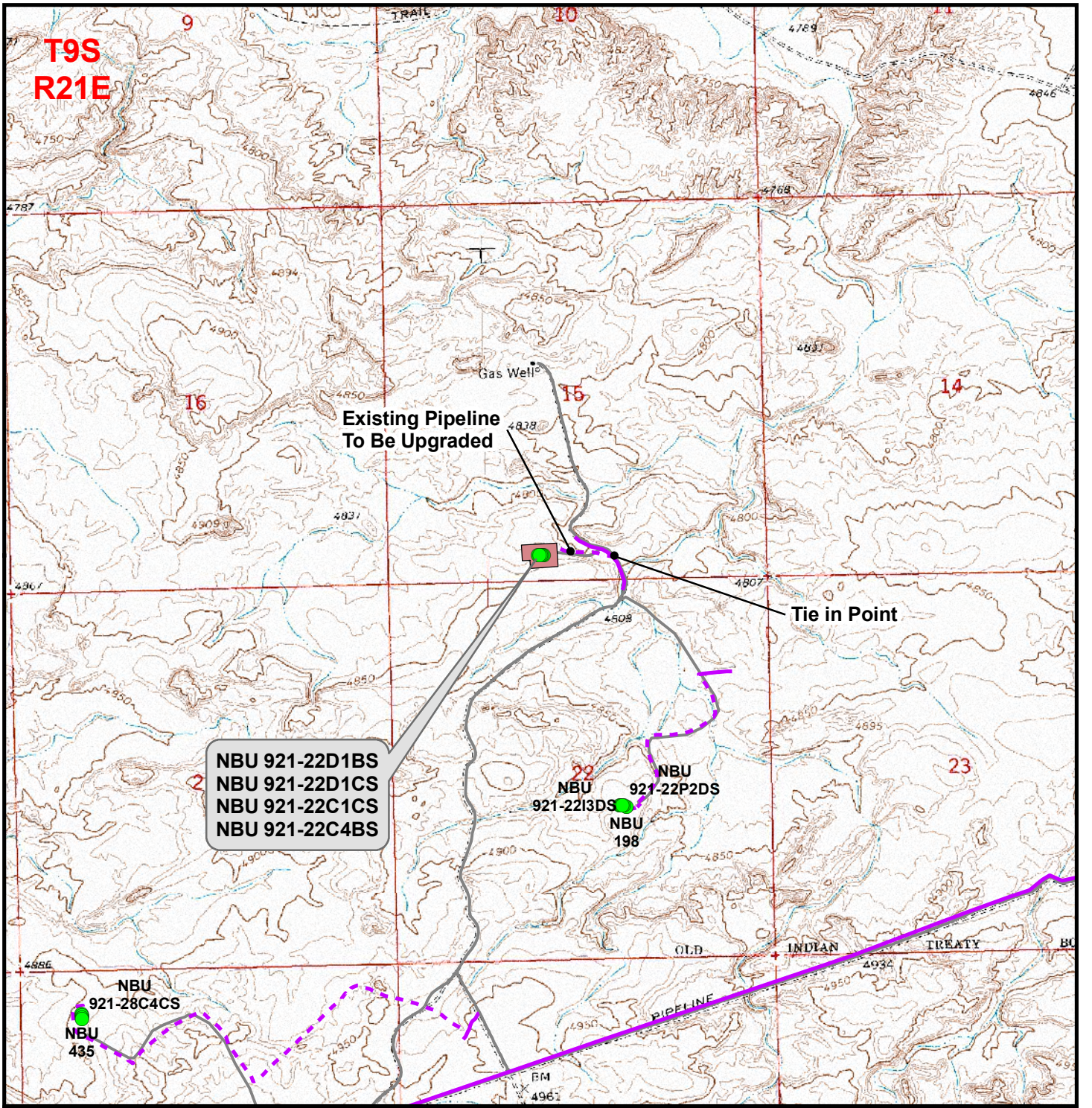
NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Topo C
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No: 11	11 of 13
Drawn: JELo	Date: 10 Feb 2009		
Revised:	Date:		

’APIWellNo:43047505290000’



Legend

Well - Proposed | Well Pad | Road - Proposed | Pipeline - Proposed | Road - Existing | Pipeline - Existing

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±820ft
Proposed Pipeline Length Around Pad: ±660ft

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Topo D
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No: 12	12 of 13
Drawn: JELo	Date: 10 Feb 2009		
Revised:	Date:		

'APIWellNo:43047505290000'

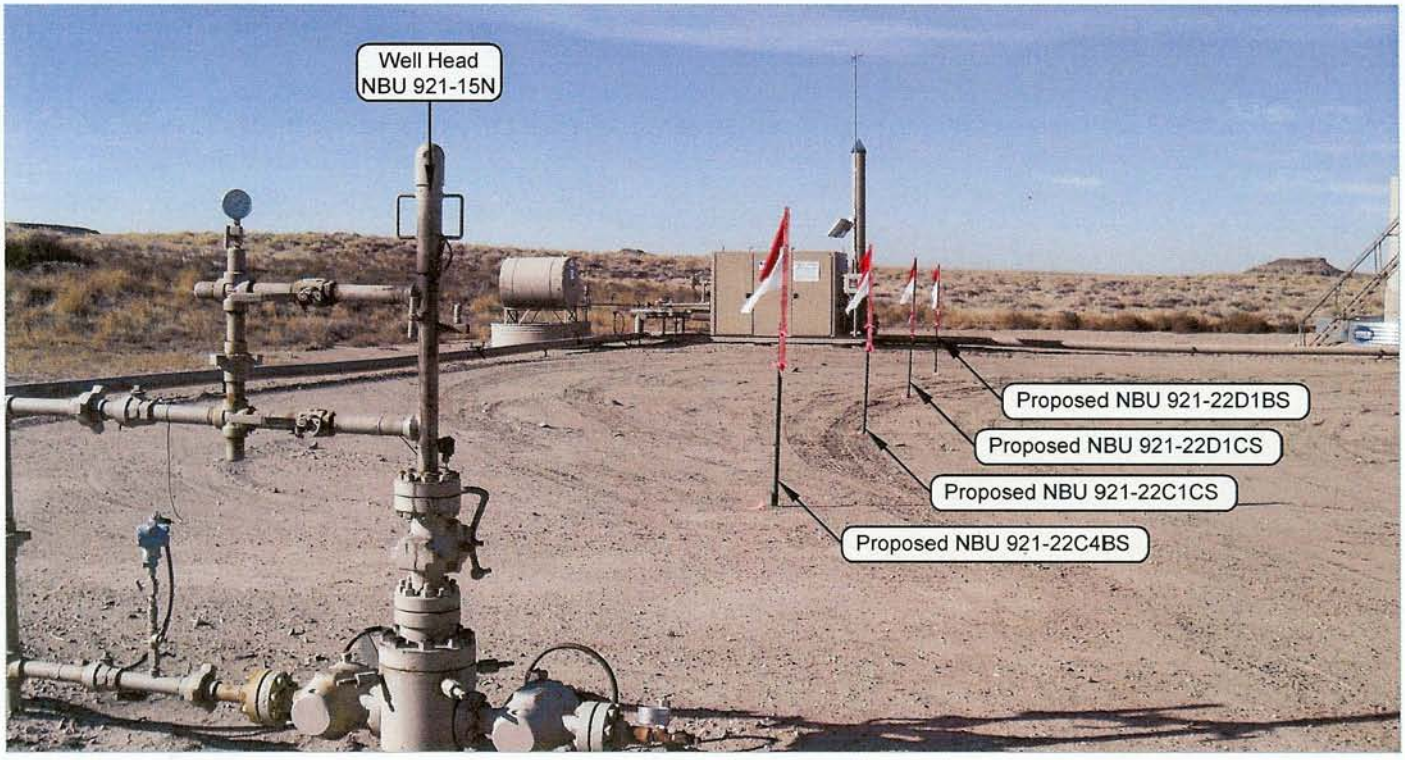


PHOTO VIEW: FROM EXISTING WELL HEAD TO LOCATION STAKES CAMERA ANGLE: SOUTHWESTERLY

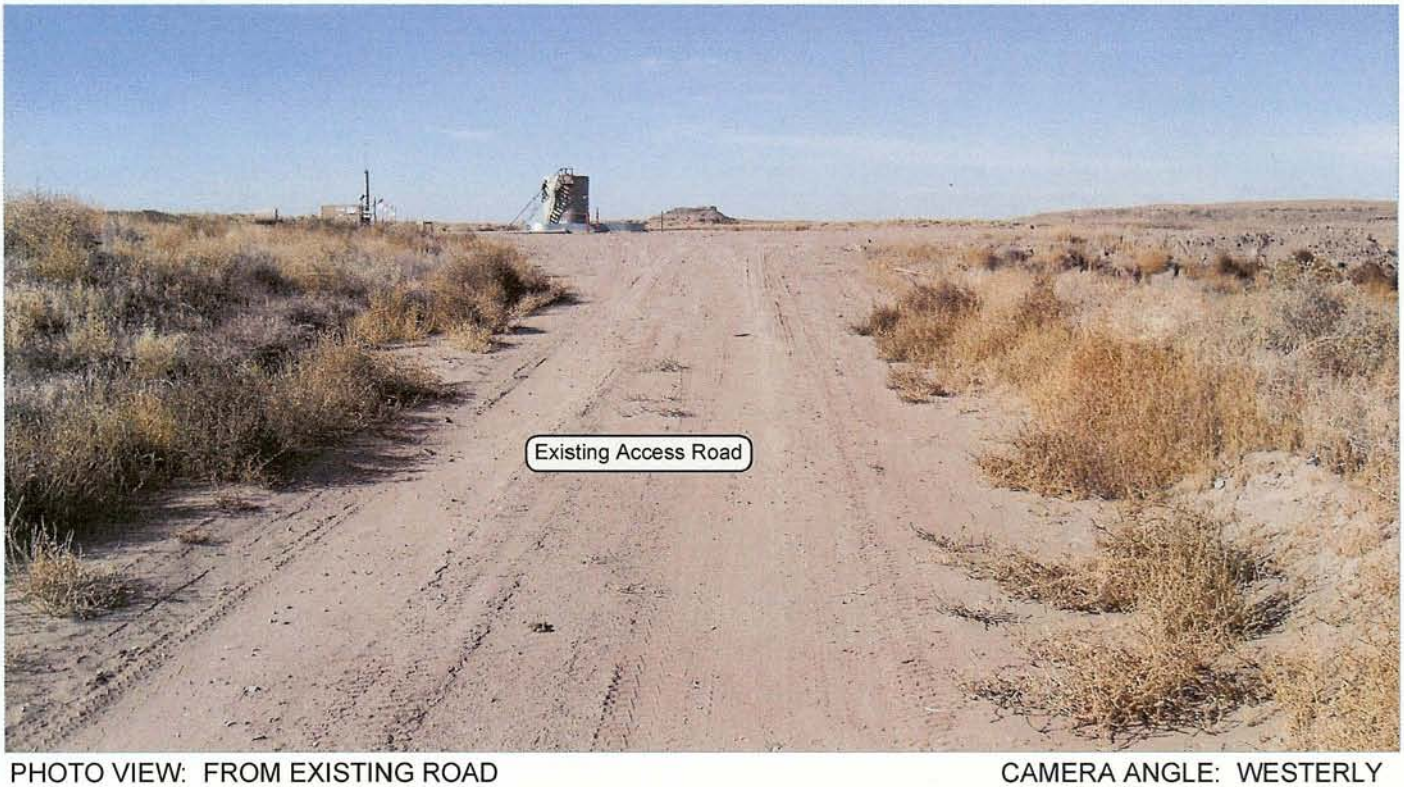


PHOTO VIEW: FROM EXISTING ROAD CAMERA ANGLE: WESTERLY

Kerr–McGee
Oil & Gas Onshore, LP
1099 18th Street – Denver, Colorado 80202

NBU 921-22D1BS, NBU 921-22D1CS,
NBU 921-22C1CS & 921-22C4BS
LOCATED IN SECTION 15, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307–674–0609
Fax 307–674–0182

LOCATION PHOTOS		DATE TAKEN: 11-13-08
		DATE DRAWN: 11-14-08
TAKEN BY: M.S.B.	DRAWN BY: E.M.S.	REVISED:

Timberline (435) 789–1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

SHEET 8 OF 13

Kerr-McGee Oil & Gas Onshore, LP
NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Section 15, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 11.4 MILES TO A CLASS D COUNTY ROAD TO THE SOUTHWEST. EXIT LEFT AND PROCEED IN A SOUTHWESTERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 1.8 MILES TO A SECOND CLASS D COUNTY ROAD TO THE NORTH. EXIT RIGHT AND PROCEED IN A NORTH BY NORTHWEST DIRECTION ALONG THE SECOND CLASS D COUNTY ROAD APPROXIMATELY 0.3 MILES TO A THIRD CLASS D COUNTY ROAD TO THE NORTH. EXIT RIGHT AND PROCEED IN A NORTHERLY, THEN NORTHEASTERLY, THEN NORTHERLY DIRECTION ALONG THE THIRD CLASS D COUNTY ROAD APPROXIMATELY 1.4 MILES TO THE EXISTING ACCESS ROAD WHICH RUNS TO THE NBU 921-15N WELL PAD. EXIT LEFT AND PROCEED IN A WESTERLY DIRECTION ALONG THE ACCESS ROAD APPROXIMATELY 0.1 MILES TO THE EXISTING NBU 921-15N WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.9 MILES IN A SOUTHERLY DIRECTION.

NBU 921-22C1CS
Surface: 359’ FSL, 2,133’ FWL (SE/4SW/4) Sec. 15
BHL: 446’ FNL 2,071’ FWL (NE/4NW/4) Sec.22

NBU 921-22C4BS
Surface: 360’ FSL, 2,153’ FWL (SE/4SW/4) Sec. 15
BHL: 812’ FNL 2,065’ FWL (NE/4NW/4) Sec.22

NBU 921-22D1BS
Surface: 357’ FSL, 2,093’ FWL (SE/4SW/4) Sec. 15
BHL: 226’ FNL 819’ FWL (NW/4NW/4) Sec.22

NBU 921-22D1CS
Surface: 358’ FSL, 2,113’ FWL (SE/4SW/4) Sec. 15
BHL: 566’ FNL 789’ FWL (NW/4NW/4) Sec.22

Pad: NBU 921-15N
T9S R21E

Uintah, Utah
Mineral Lease: UTU 0147566

Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. NOSs were submitted showing the surface locations in SE/4 SW/4 of Section 15 T9S R21E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting was held on June 24, 2009. Present were:

- Verlyn Pindell and Dave Gordon – BLM;
- Kolby Kay and Mitch Batty – Timberline Surveying, Inc.
- Tony Kazeck, Jeff Samuels, Raleen White, David Liddell, and Hal Blanchard – Kerr-McGee
- Bucky Secakuku – BIA
- Nick Hall – Grasslands Consulting, Inc.
- Scott Carson – Smiling Lake Consulting
- Keith Montgomery – Montgomery Archaeological Consultants, Inc.

Directional Drilling:
In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. Existing Roads:
A) Refer to Topo Map A for directions to the location.
B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:
See MDP for additional details on road construction.
No new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

3. Location of Existing Wells Within a 1-Mile Radius:
Please refer to Topo Map C.

4. Location of Existing and Proposed Facilities:
See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.
Approximately ±1,480' of new pipeline is proposed. Refer to Topo D for the existing pipeline.
Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

5. Location and Type of Water Supply:
See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, Application number 53617. Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. Source of Construction Materials:
See MDP for additional details on Source of Construction Materials.

7. Methods of Handling Waste Materials:
See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

8. Ancillary Facilities:
See MDP for additional details on Ancillary Facilities.

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)
See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

10. Plans for Reclamation of the Surface:
See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

11. Surface/Mineral Ownership:
The well pad and access road are located on lands owned by:

Ute Indian Tribe
PO Box 70
Fort Duchesne, Utah 84026
435-722-5141

The mineral ownership is listed below:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
435-781-4400

12. Other Information:

See MDP for additional details on Other Information.

13. **Lessee's or Operators' Representative & Certification:**

Kathy Schneebeck Dulnoan
Staff Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Kathy Schneebeck Dulnoan

June 29, 2009
Date

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 34 PROPOSED WELL LOCATIONS IN TOWNSHIP 9S, RANGE 21E, SECTIONS 11, 15, 18, 22, 25 AND 28 UINTAH COUNTY, UTAH

By:

Patricia Stavish

Prepared For:
Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office
and
State of Utah
School & Institutional Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-319

February 19, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A08-363

Paleontological Assessment for Anadarko Petroleum Corp.

NBU 921-22D1BS, D1CS, C1CS, C4BS

Ouray SE Quadrangle

Uintah County, Utah

Prepared for

Anadarko Petroleum Corp.
and
Ute Tribe
Uintah and Ouray Reservation

Prepared by

SWCA Environmental Consultants

SWCA #UT09-14314-20

'APIWellNo:43047505290000'

API Number: 4304750529

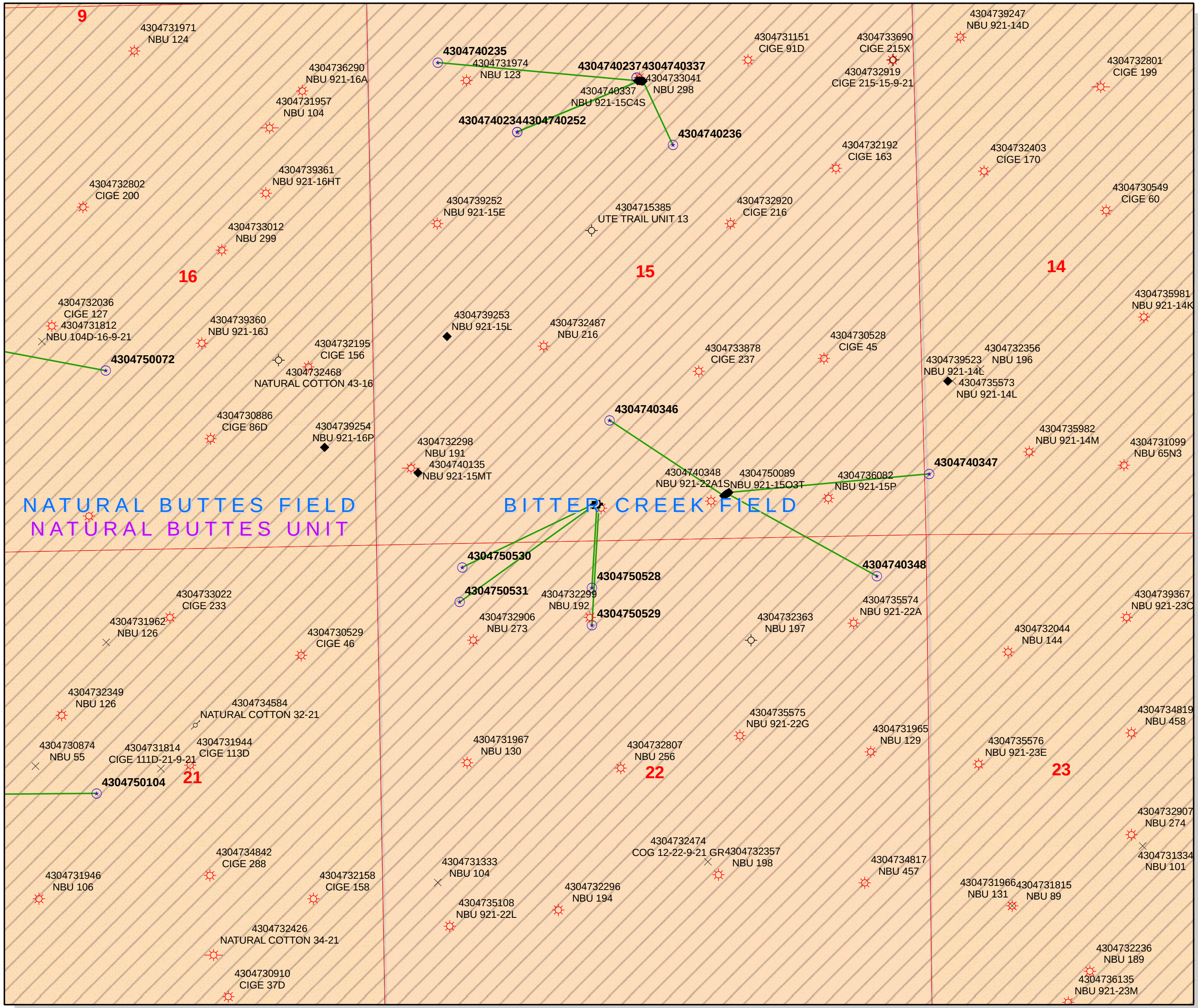
Well Name: NBU 921-22C4BS

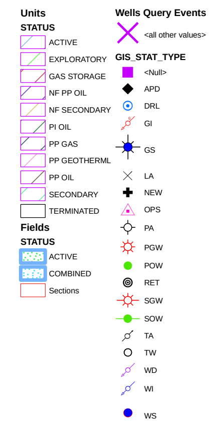
Township 09.0 S Range 21.0 E Section 15

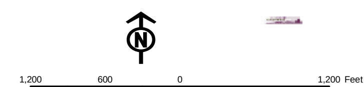
Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason







1:12,000

API Well No: 43047505290000

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

July 2, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Natural Buttes Unit Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50522	NBU 920-12M4CS	Sec 13 T09S R20E 0422 FNL 2135 FWL BHL Sec 12 T09S R20E 0240 FSL 0675 FWL
43-047-50523	NBU 920-13C1AS	Sec 13 T09S R20E 0389 FNL 2156 FWL BHL Sec 13 T09S R20E 0170 FNL 2600 FWL
43-047-50524	NBU 920-13C4BS	Sec 13 T09S R20E 0405 FNL 2146 FWL BHL Sec 13 T09S R20E 0920 FNL 2100 FWL
43-047-50525	NBU 920-14M1BS	Sec 14 T09S R20E 0468 FSL 0637 FWL BHL Sec 14 T09S R20E 1220 FSL 0675 FWL
43-047-50527	NBU 920-14M3AS	Sec 14 T09S R20E 0488 FSL 0633 FWL BHL Sec 14 T09S R20E 0590 FSL 0635 FWL
43-047-50528	NBU 921-22C1CS	Sec 15 T09S R21E 0359 FSL 2133 FWL BHL Sec 22 T09S R21E 0446 FNL 2071 FWL
43-047-50529	NBU 921-22C4BS	Sec 15 T09S R21E 0360 FSL 2153 FWL BHL Sec 22 T09S R21E 0812 FNL 2065 FWL
43-047-50530	NBU 921-22D1BS	Sec 15 T09S R21E 0357 FSL 2093 FWL BHL Sec 22 T09S R21E 0226 FNL 0819 FWL
43-047-50531	NBU 921-22D1CS	Sec 15 T09S R21E 0358 FSL 2113 FWL

API Well No: 43047505290000

BHL Sec 22 T09S R21E 0566 FNL 0789 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:7-2-09

'APIWellNo:43047505290000'

Kerr-McGee Oil & Gas Onshore LP

1099 18th Street, Suite 1800
Denver, CO 80202-1918
P.O. Box 173779
Denver, CO 80217-3779
720-929-6000

April 6, 2009

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 921-22C4BS
T9S-R21E
Section 15: SESW (Surf), Section 22: NENW (Bottom)
Surface: 360' FSL, 2153' FWL (Sec. 15)
Bottom Hole: 812' FNL, 2065' FWL (Sec. 22)
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 921-22C4BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,
KERR-MCGEE OIL & GAS ONSHORE LP

Lynn Padgett
Staff Landman

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/30/2009 **API NO. ASSIGNED:** 43047505290000

WELL NAME: NBU 921-22C4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SESW 15 090S 210E **Permit Tech Review:** ☑

SURFACE: 0360 FSL 2153 FWL **Engineering Review:** ☑

BOTTOM: 0812 FNL 2065 FWL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 40.02983 **LONGITUDE:** -109.53891

UTM SURF EASTINGS: 624670.00 **NORTHINGS:** 4431881.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0147566 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 2 - Indian **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: 460' fr u bdry & uncomm. tract

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed
BHL SEC 22 NENW:

Stipulations:
3 - Commingling - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 921-22C4BS
API Well Number: 43047505290000
Lease Number: UTU 0147566
Surface Owner: INDIAN
Approval Date: 7/30/2009

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14 commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

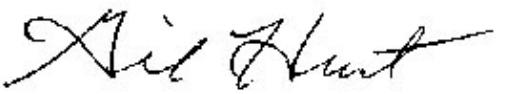
Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047505290000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22C4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047505290000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0360 FSL 2153 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 8/3/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: August 03, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		8/3/2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047505290000

API: 43047505290000
Well Name: NBU 921-22C4BS
Location: 0360 FSL 2153 FWL QTR SESW SEC 15 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 7/30/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 8/3/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, LP

Date: August 03, 2010

By:

RECEIVED August 03, 2010

Form 3160-3
(August 2007)

RECEIVED
JUN 30 2009
BLM

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER	5. Lease Serial No. UTU0147566
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA Agreement, Name and No. 891008900A
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone	8. Lease Name and Well No. NBU 921-22C4BS
2. Name of Operator KERRMCGEE OIL&GAS ONSHORE LP — Contact: DANIELLE E PIERNOT — E-Mail: Danielle.Piernot@anadarko.com	9. API Well No. 43-047-50529
3a. Address PO BOX 173779 DENVER, CO 80202-3779 — 3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156	10. Field and Pool, or Exploratory NATURAL BUTTES
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface SESW 360FSL 2153FWL 40.02981 N Lat, 109.53962 W Lon (Sec. 15) At proposed prod. zone NENW 812FNL 2065FWL 40.02659 N Lat, 109.53993 W Lon (Sec. 22)	11. Sec., T., R., M., or Blk. and Survey or Area Sec 15 T9S R21E Mer SLB
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 26 MILES SOUTHEAST OF OURAY, UTAH	12. County or Parish UINTAH — 13. State UT
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 812 FEET — 16. No. of Acres in Lease 160.00	17. Spacing Unit dedicated to this well
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 370 FEET — 19. Proposed Depth 10413 MD 10100 TVD	20. BLM/BIA Bond No. on file WYB000291
21. Elevations (Show whether DF, KB, RT, GL, etc. 4827 GL — 22. Approximate date work will start 07/20/2009	23. Estimated duration 60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) DANIELLE E PIERNOT Ph: 720-929-6156	Date 06/30/2009
Title REGULATORY ANALYST		
Approved by (Signature)	Name (Printed/Typed) James H. Sparger	NOV 17 2010
Title Acting Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED
NOV 17 2010
DIV. OF OIL, GAS & MINING

Additional Operator Remarks (see next page)

Electronic Submission #71516 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by GAIL JENKINS on 07/02/2009 ()

NOS approved 9/16/09

NOTICE OF APPROVAL **CONDITIONS OF APPROVAL ATTACHED**

AFMSS#_____

UDOGM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

09GXJ5113AE

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr McGee Oil & Gas Onshore LP**	**Location:**	**SESW, Sec 15, T9S R21E**
Well No:	**NBU 921-22C4BS**	**Lease No:**	**UTU-0147566**
API No:	**43-047-50529**	**Agreement:**	**Natural Buttes Unit**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC CONDITIONS OF APPROVAL

- Paint old and new facilities "Shadow Gray."
- Move the existing pipeline off the damage area of the well pad.
- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002, a raptor survey should be conducted prior to expansion of the well pad or pipeline upgrade if construction would take place during raptor nesting season (January 01 through September 30). If active raptor nests are identified during a new survey, KMG should conduct its operations according to the seasonal restrictions detailed in the Uintah Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines (see Appendix D).
- If project construction operations are not initiated before June 25, 2010, KMG should conduct additional biological surveys in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus (See Appendix D) and conduct its operation according to its specifications.

BIA Standard Conditions of Approval:

- Soil erosion will be mitigated by reseeding all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.
- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
- Major low water crossings will be armored with pit run material to protect them from erosion.

- All personnel should refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.

- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

- Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.

- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.

- If project construction operations are scheduled to occur after December 31, 2009, KMG should conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002. If active raptor nest are indentified during a new survey, KMG should conduct its operations according to the seasonal restrictions detailed in the Uinta basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Gui9ldlines (See Appendix D).

- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix D).

- All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.

- If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE CONDITIONS OF APPROVAL

- A Gama Ray Log shall be run from TD to surface.

Variances Granted:

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22C4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047505290000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0360 FSL 2153 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 5/14/2011	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 05/14/2011 AT 0900 HRS.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/17/2011

RECEIVED May. 17, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22C4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047505290000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0360 FSL 2153 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 5/21/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU AIR RIG ON MAY 18, 2011. DRILLED SURFACE HOLE TO 2795'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/23/2011

RECEIVED May. 23, 2011

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 921-22C4BS
Qtr/Qtr SESW Section 15 Township 9S Range 21E
Lease Serial Number UTU-0147566
API Number 4304750529

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 05/14/2011 08:00 HRS AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

RECEIVED
MAY 16 2011
DIV. OF OIL, GAS & MINING

Date/Time 05/18/2011 12:00 HRS AM ☐ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT 435.781.7048 OR LOVEL YOUNG AT 435.828.0986

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750529	NBU 921-22C4BS		SESW	15	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/14/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 05/14/2011 AT 0900 HRS BHL = Sec 22 NENW

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750528	NBU 921-22C1CS		SESW	15	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/14/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 05/14/2011 AT 10:25 HRS. BHL = Sec 22 NENW

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750531	NBU 921-22D1CS		SESW	15	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/14/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 05/14/2011 AT 12:45 HRS. BHL = Sec 22 NWNW

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK
Name (Please Print)

Signature

REGULATORY ANALYST
Title

5/16/2011
Date

RECEIVED
MAY 18 2011
DIV. OF OIL, GAS & MINING

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22C4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047505290000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0360 FSL 2153 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 6/12/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2795' TO 10,311' ON JUNE 10, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING TO 9758'. RAN 4 ½" 11.6# P110 CSG FROM 9758' TO 10291'. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 145 ON JUNE 12, 2011 @ 03:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 6/13/2011

RECEIVED Jun. 13, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22C4BS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047505290000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0360 FSL 2153 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 8/23/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 08/23/2011 AT 12:00 PM. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 8/24/2011

RECEIVED Aug. 24, 2011

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU0147566

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU63047A

2. Name of Operator KERR MCGREE OIL & GAS ONSHORE Contact: ANDREW LYTLE
E-Mail: andrew.lytle@anadarko.com

8. Lease Name and Well No. NBU 921-22C4BS

3. Address P.O. BOX 173779
DENVER, CO 80217

3a. Phone No. (include area code)
Ph: 720-929-6100

9. API Well No. 43-047-50529

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface Sec 15 T9S R21E Mer SLB SESW 360FSL 2153FWL 40.029808 N Lat, 109.539620 W Lon
At top prod interval reported below Sec 22 T9S R21E Mer SLB NENW 851FSL 2051FWL
At total depth Sec 22 T9S R21E Mer SLB NENW 842FSL 2072FWL

Bin Reviewed by HSM

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 15 T9S R21E Mer SLB

12. County or Parish UINTAH

13. State UT

14. Date Spudded 05/14/2011 728

15. Date T.D. Reached 06/16/2011

16. Date Completed ☐ D & A ☐ Ready to Prod. 08/23/2011

17. Elevations (DF, KB, RT, GL)* 4826 GL

18. Total Depth: MD 10311 TVD 10142

19. Plug Back T.D.: MD 10248 TVD 10079

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL/GR/CT

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7		40		28			
12.250	9.625 J-55	36.0		2771		525		0	
7.875	4.500 I-80	11.6		9758		1705		990	
7.875	4.500 P-110	11.6	9758	10291					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	9525							

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	WASATCH	7130	7953	7130 TO 7953	0.360	51	OPEN
B)	MESAVERDE	8089	10038	8089 TO 10038	0.360	177	OPEN
C)							
D)							

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
7130 TO 10038	PUMP 6,970 BBLS SLICK H2O & 138,104# SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
08/23/2011	08/27/2011	24	→	240.0	2306.0	432.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	1456	2200.0	→	240	2306	432		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #118214 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RECEIVED
SEP 30 2011
DIV. OF OIL, GAS & MINING

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
GREEN RIVER	1580				
BIRD'S NEST	1922				
MAHOGANY	2295				
WASATCH	5124	8082			
MESAVERDE	8082	10311			

32. Additional remarks (include plugging procedure):
Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #118214 Verified by the BLM Well Information System.
For KERR MCGREE OIL & GAS ONSHORE,, sent to the Vernal

Name *(please print)* ANDREW LYTLE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 09/22/2011

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/18/2011	6:00 - 14:00	8.00	MIRU	01	A	P		MIRU
	14:00 - 16:30	2.50	PRPSPD	14	A	P		WELD ON CONDUCTOR & RIG UP FLOWLINE
	16:30 - 18:30	2.00	PRPSPD	06	A	P		MOVE BHA TO WORK AREA, STRAP, & PU 12.25" BIT (SN 7133304) & HUNTING 8" MM (SN 8031, 1.83 BEND, .17 RPG)
	18:30 - 20:30	2.00	DRLSUR	02	B	P		SPUD 12.25" SURFACE HOLE @ 18:30 5/18/2011 /// DRILL F/ 40'- T/ 225" /// ROP= 92'/HR /// WOB= 18/20K /// RPM= TD-50/ MM-90 /// SPP= ON/OFF-900/750 /// GPM= 595
	20:30 - 23:30	3.00	DRLSUR	06	A	P		TOOH /// PU DIR TOOLS & SCRIBE /// TIH TO 225'
	23:30 - 0:00	0.50	DRLSUR	02	D	P		DRILL/ SLIDE 12.25" SURFACE HOLE F/ 225'- T/ 289' /// ROP= 64' @ 128'/HR /// WOB= 18/20K /// RPM=55-TD/90-MM /// SPP=900/ 770 // GPM= 595 /// NO LOSSES
5/19/2011	0:00 - 0:30	0.50	DRLSUR	02	D	P		DRILL/ SLIDE 12.25" SURFACE HOLE F/ 289'- 350' /// ROP= 61' @ 122'/HR /// WOB= 18/20K /// RPM=55-TD/90-MM /// SPP=900/ 770 // GPM= 595 /// NO LOSSES
	0:30 - 1:30	1.00	DRLSUR	22	L	Z		WORK ON MWD TOOLS (NOT COMMUNICATING) BAD SURFACE BOX
	1:30 - 4:30	3.00	DRLSUR	02	D	P		DRILL/ SLIDE 12.25" SURFACE HOLE F/ 350'-603' /// ROP= 253' @ 84'/HR /// WOB= 18/20K /// RPM=55-TD/90-MM /// SPP=900/ 770 // GPM= 595 /// NO LOSSES
	4:30 - 6:00	1.50	DRLSUR	22	L	Z		WORK ON MWD TOOLS (LOST COMMUNICATION AGAIN) WIRES CROSSED ON NEW SURFACE BOX
	6:00 - 8:00	2.00	DRLSUR	02	D	P		DRILL/ SLIDE 12.25" SURFACE HOLE F/ 603'- T/ 825' /// ROP= 222' @ 111'/HR /// WOB= 18/20K /// RPM=55-TD/90-MM /// SPP=900/ 770 // GPM= 595 /// NO LOSSES
	8:00 - 9:30	1.50	DRLSUR	06	J	P		COULD NOT GET DIR TOOLS TO TURN RIGHT./// TOOH TO CHECK TOOLS
	9:30 - 12:00	2.50	DRLSUR	06	J	P		CHECK MWD TOOLS & RE SCRIBE /// SCRIBE OFF 1.5" (ABOUT 20 DEG)
	12:00 - 13:00	1.00	DRLSUR	06	J	P		TIH
	13:00 - 18:00	5.00	DRLSUR	02	D	P		DRILL/ SLIDE 12.25" SURFACE HOLE F/ 825'-T/ 1237' /// ROP= 412' @ 82'/HR /// WOB= 18/20K /// RPM=55-TD/90-MM /// SPP=900/ 770 // GPM= 595 /// NO LOSSES
	18:00 - 0:00	6.00	DRLSUR	02	D	P		DRILL/ SLIDE 12.25" SURFACE HOLE F/1237'-T/ 1682' /// ROP= 445' @ 74'/HR /// WOB= 20/22K /// RPM=55-TD/90-MM /// SPP= 1300/ 1050 // GPM= 595 /// NO LOSSES
5/20/2011	0:00 - 6:00	6.00	DRLSUR	02	D	P		DRILL/ SLIDE 12.25" SURFACE HOLE F/1682' - T/ 2092' /// ROP= 410' @ 78'/HR /// WOB= 20/22K /// RPM=55-TD/90-MM /// SPP= 1350/ 1050 // GPM= 595 /// NO LOSSES
	6:00 - 19:30	13.50	DRLSUR	02	D	P		DRILL/ SLIDE 12.25" SURFACE HOLE F/2092'- T/ 2795' /// ROP= 703' @ 52'/HR /// WOB= 20/22K /// RPM=55-TD/90-MM /// SPP= 1450/ 1150 // GPM= 595 /// NO LOSSES /// LAST SURVEY @ 2746'= 19.52 DEG & 181.44 /// 73.54% ROTATE & 26.46% SLIDE
	19:30 - 20:00	0.50	DRLSUR	05	C	P		CIRC & COND HOLE FOR 9-5/8" SURFACE CSG
	20:00 - 23:00	3.00	DRLSUR	06	A	P		TOOH & LDDS & DIR TOOLS

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	23:00 - 0:00	1.00	CSG	12	A	P		PJSM & RUN 9-5/8" SURFACE CSG
5/21/2011	-		RDMO					CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28 SPUD DATE/TIME: 5/18/2011 18:30 SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,795 Total SURFACE hours: 38.50 Surface Casing size: 9-5/8" # of casing joints ran: 5-Mar Casing set MD: 2,766.0 # sx of cement: 200/225/100 Cement blend (ppg:) 11/15.8/15/8 Cement yield (ft3/sk): 3.82/1.15/1.15 # of bbls to surface: 35 Describe cement issues: NONE Describe hole issues: NONE
	0:00 - 3:30	3.50	CSG	12	C	P		RUN 65 JT'S 9-5/8", 40#, J-55, LT&C CSG /// SHOE SET @ 2766' KB & BAFFLE @ 2721' KB
	3:30 - 4:00	0.50	CSG	05	A	P		CIRC 9-5/8" SURFACE CSG @ 2766'
	4:00 - 6:00	2.00	CSG	12	E	P		PJSM WITH SUPERIOR CMT CREW /// INSTALL CMT HEAD /// TEST LINES TO 2500 PSI /// PUMP 25 BBL FLUSH /// LEAD= 200sx CLASS G CMT @ 11.0 WT & 3.82 YIELD /// TAIL= 225sx CLASS G CMT @ 15.8 WT & 1.15 YIELD /// DROP PLUG & DISPLACE W/ 195 BBL'S WATER /// PLUG DN @ 05:42 5/21/2011 /// BUMP PLUG @ 735 PSI /// FINAL LIFT = 590 PSI /// CHECK FLOATS - HELD WITH 1.5 BBL'S BACK /// FULL RETURNS THRU OUT ENTIRE JOB /// 35 BBL'S CMT TO SURFACE
	6:00 - 6:30	0.50	CSG	14	A	P		CUT OFF CONDUCTOR & HANG 9-5/8" SURFACE CSG
	6:30 - 7:00	0.50	CSG	12	E	P		RUN 200' OF 1" DN BACK SIDE & TOP OUT W/ 100sx CMT @ 15.8 WT & 1.15 YIELD /// CMT STAYED @ SURFACE
	7:00 - 8:00	1.00	RDMO	01	E	P		CLEAN PITS & RIG DN /// RELEASE RIG @ 08:00 5/21/2011 TO THE NBU 921-22C1CS
6/1/2011	21:00 - 0:00	3.00	MIRU	01	E	P		UNBECKET TOP DRIVE FROM BLOCKS,HANG 7 CHAIN DOWN BLOCKS,REMOVE DEAD MAN
6/2/2011	0:00 - 6:00	6.00	MIRU	01	E	P		RIG UP SPOOLER AND UNSPOOL DRILL LINE & CUT 52', RIG DOWN FLOOR, REMOVE RAM COVERS, RIG DOWN BOARD, IDM & CATWALK, UNSPOOL WINCHES
	6:00 - 18:00	12.00	MIRU	01	E	P		TIE IN SERVICE LOOP,KELLY HOSE,PULL CORDS,BLEAD RAMS,LOWER DERRICK@ 10:30,ROLL UP CABLES,UNSTRING BLOCKS, RIG DOWN MISC.
	18:00 - 0:00	6.00	MIRU	01	E	P		RIG DOWN UPRIGHTS,BULK LCM TRAILER,PUMP HOUSES,PITS,COMBO HOUSE, GENERATORS, CONTROL HOUSE
6/3/2011	0:00 - 6:00	6.00	MIRU	01	E	P		WAIT ON DAYLIGHT FOR TRUCKS TO MOVE RIG
	6:00 - 18:00	12.00	MIRU	01	A	P		HELD SAFTEY MEETING MOB RIG, SET MUD TANKS,COMBO HOUSE,UPRIGHTS,BULK LCM TRAILER,PUMP HOUSES,PITS, GENERATORS, VFD HOUSE, PUMPS, PRE MIX, WATER TANK,FRAC TANKS, CEMENT TANKS, RUN POWER TO SUB, START GENERATOR, RUN HYD LINES

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:00 - 0:00	6.00	MIRU	01	B	P		TRUCKS RELEASED @ 18:00, STRING UP BLOCKS,BLEED RAMS,RAISE DERRICK, PLUG IN DRAW WORKS, UNTIE DROP BOARD,RIG UP CAT WALK,RIG UP FLOOR
6/4/2011	0:00 - 4:00	4.00	MIRU	01	B	P		SPOOL ON DRILL LINE UN HANG BLOCKS,BECKIT UP,CENTER LEVEL RIG
	4:00 - 6:00	2.00	MIRU	14	A	P		NIPPLE UP BOP,CHOKE LINE,FLARE LINES, 4" MUD LINES
	6:00 - 10:30	4.50	MIRU	15	A	P		HELD SAFTEY MEETING, RIG UP SINGLE JACK TESTER, TEST BOP, I-BOP, MANUEL I-BOP, PIPE RAMS, TIW, HCR, 250 LOW 5000 HIGH, TEST HCR, MANUEL HCR, BLIND RAMS, INSIDE/OUTSIDE KILL, CHOKE MANIFOLD TO 250 LOW 5000 HIGH, TEST ANNULAR TO 2500 AND CASING TO 1500, RIG DOWN TESTER, INSTALL WEAR BUSHING, PRE DRILL INSPECTION
	10:30 - 12:30	2.00	DRLPRO	07	A	P		PUT BHA ON RACKS, CHANGE OUT X-OVER ON TOP DRIVE & CHANGE OIL IN TOP DRIVE
	12:30 - 14:00	1.50	DRLPRO	06	A	P		PICK UP BIT, MOTOR & DIRECTIONAL TOOLS
	14:00 - 15:00	1.00	DRLPRO	08	A	Z		CHANGE AIR BOOT ON FLOW LINE
	15:00 - 19:00	4.00	DRLPRO	06	A	P		TRIP IN HOLE TO 2693'
	19:00 - 20:00	1.00	DRLPRO	02	F	P		DRILL CEMENT AND FLOAT EQUI. & CLEAN OUT OPEN HOLE BELOW SURFACE CASING, F/2693 TO 2799
	20:00 - 0:00	4.00	DRLPRO	02	D	P		DRILL F/ 2799' TO 3191' = 392' 98 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1007/1469 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 9K/8K FT/LBS PU / SO / ROT WT 130 / 98/ 111 WT ON BIT 15K TO 22K NO LOSS, DRILLING WITH WATER
6/5/2011	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 3191' TO 3915' = 724' 120.6 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1090/1631 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 9K/8K FT/LBS PU / SO / ROT WT 134 / 99/ 116 WT ON BIT 15K TO 22K NO LOSS, DRILLING WITH WATER OIL SHOW @ 3851'
	6:00 - 12:30	6.50	DRLPRO	02	D	P		DRILL F/ 3915' TO 4616' = 700' 107 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1151/1554 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 9K/8K FT/LBS PU / SO / ROT WT 141 / 120/ 130 WT ON BIT 15K TO 22K NO LOSS, DRILLING WITH WATER
	12:30 - 13:00	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRILL F/ 4616' TO 5980' = 1364' 124 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1335/1805 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 11K/8K FT/LBS PU / SO / ROT WT 163 / 127/ 145 WT ON BIT 15K TO 24K NO LOSS, DRILLING WITH WATER

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
6/6/2011	0:00 - 12:30	12.50	DRLPRO	02	D	P		DRILL F/ 5980' TO 7152' = 1172' 93.7 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1509/1867 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 11K/8K FT/LBS PU / SO / ROT WT 195 / 150/ 167 WT ON BIT 15K TO 24K NO LOSS, DRILLING WITH WATER
	12:30 - 13:00	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	13:00 - 13:30	0.50	DRLPRO	08	A	Z		RIG BLACKED OUT GENERATOR OVER SPEED WHILE TRYING TO PUT ON LINE, RIG SHUT DOWN WHILE DRILLING
	13:30 - 14:30	1.00	DRLPRO	02	D	P		DRILL F/ 7152' TO 7225' = 73' 73 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1509/1867 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 11K/8K FT/LBS PU / SO / ROT WT 195 / 150/ 167 WT ON BIT 15K TO 24K NO LOSS, DRILLING WITH WATER
	14:30 - 15:00	0.50	DRLPRO	08	A	Z		LOST PUMP PRESSURE, #1 PUMP LINER WASHED SWITCH PUMPS
	15:00 - 20:30	5.50	DRLPRO	02	D	P		DRILL F/ 7225' TO 7401' = 176' 32 FPH STKS #1 & #2 PUMPS 00/105, 473 GPM PSI OFF / ON BOTTOM 1509/1867 MOTOR RPM / ROTARY RPM, 99/45 TQ ON / OFF BOTTOM 11K/8K FT/LBS PU / SO / ROT WT 195 / 150/ 167 WT ON BIT 15K TO 24K NO LOSS, DRILLING WITH WATER DRILLING SLOWED TO 15' TO 20 FPH IT NEVER DID REALLY DRILL GOOD AFTER GENERATORS WENT DOWN
	20:30 - 0:00	3.50	DRLPRO	05	A	P		WAS STARTING MUD UP WHEN QUIT DRILLING, FINISH MUD UP AND BUILD VOLUME FOR TRIP OUT, CHECK FLOW @ 21:00 WELL FLOWING WT 8.7 VIS 38 IN, WT 8.6 30 VIS OUT, FLOW CHECK @ 23:00 WELL FLOWING WT 8.8 33 VIS IN, WT 8.7 32 VIS OUT, MUD CHECK @ 00:00 WT 8.9+ 38 VIS IN, WT 8.7 34 VIS OUT
6/7/2011	0:00 - 1:30	1.50	DRLPRO	05	B	P		CIRCULATE FINISH MUD UP, RAISE MUD WT FOR TRIP OUT TO 9.0 PPG
	1:30 - 4:00	2.50	DRLPRO	08	A	Z		WORK ON IDM POWER SHOE WOULD NOT OPEN
	4:00 - 9:30	5.50	DRLPRO	06	A	P		TRIP OUT OF HOLE LAY DOWN MWD TOOL, BIT & MOTOR. HOLE TOOK PROPER FLUID, NO TIGHT SPOTS
	9:30 - 11:00	1.50	DRLPRO	06	A	P		PICK UP BIT #2, NEW MOTOR, MWD TOOL AND SCRIBE, TRIP IN HOLE
	11:00 - 12:00	1.00	DRLPRO	08	A	Z		WORK ON IDM REPAIR POWER SHOE WOULD NOT RELEASE PIPE
	12:00 - 18:00	6.00	DRLPRO	06	A	P		TRIP IN HOLE TO SHOE WITH STANDS, BREAK CIRCULATION, TRIP IN PICKING UP SINGLES, TO 5660', LEAVE STANDS IN DERRICK TO DRILL WITH, TRIP IN TO 7311' WITH STANDS, REAM LAST 90' TO BOTTOM NO FILL, REAM BRIDGE AT 4031'

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:00 - 23:30	5.50	DRLPRO	02	D	P		DRILL F/ 7401' TO 7837' = 436' 79 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1791/2148 MOTOR RPM / ROTARY RPM, 86/48 TQ ON / OFF BOTTOM 11K/9K FT/LBS PU / SO / ROT WT 201 / 150/ 170 WT ON BIT 15K TO 24K NO LOSSES
	23:30 - 0:00	0.50	DRLPRO	08	A	Z		WORK ON WEIGHT INDICATOR & AUTO DRILLER
6/8/2011	0:00 - 0:30	0.50	MAINT	08	A	Z		PROBLEM WITH PECO WEIGHT INDICATOR AND AUTO DRILLER. REBOOT PECO AND TROUBLE SHOOT PROBLEM.
	0:30 - 2:00	1.50	DRLPRO	02	D	P		DRILL 7837'-7935' (98', 65'/HR) DRILL WITH OUT AUTO DRILLER. 'WOB 19-22K AVE WOB 20K, SPM 120, GPM 540, PSI ON/OFF 2125/1750, DIFF 375, MOT RPM 86, ROT 35-40, TOR ON/OFF/UP 11/11/12, PU/SO/ROT 215/160/176, DRAG 39K. MUD IN 9.6/36, MUD OUT 9.6/35 LCM 4%.0' SLIDE 100% ROTATION. 0' FLARE. NO LOSSES AT THIS TIME. TROUBLE SHOOT AUTO DRILLER WHILE DRILLING.
	2:00 - 3:30	1.50	MAINT	08	A	Z		PROBLEM WITH PECO WEIGHT INDICATOR AND AUTO DRILLER. REBOOT PECO AND TROUBLE SHOOT PROBLEM. PLC PROBLEM. RESET PLC. REBOOT COMPUTER.
	3:30 - 4:30	1.00	DRLPRO	02	D	P		DRILL 7935'-8030' (95', 95'/HR) 'WOB 19-22K AVE WOB 20K, SPM 120, GPM 540, PSI ON/OFF 2125/1750, D8743'-IFF 375, MOT RPM 86, ROT 35-40, TOR ON/OFF/UP 11/11/12, PU/SO/ROT 214/161/177, DRAG 37K. MUD IN 9.6/36, MUD OUT 9.6/35 LCM 4%. 0' SLIDE, 100% ROTATION. 0' FLARE. NO LOSSES AT THIS TIME.
	4:30 - 5:00	0.50	MAINT	08	A	Z		ETHERNET TRIPPED. RESET ETHERNET.
	5:00 - 15:30	10.50	DRLPRO	02	D	P		DRILL SLIDE 8030'-8743' (713', 68'/HR) 'WOB 19-23K AVE WOB 22K, SPM 120, GPM 540, PSI ON/OFF 2400/2000, DIFF 400, MOT RPM 86, ROT 35-40, TOR ON/OFF/UP 13/14/14, PU/SO/ROT 216/164/184, DRAG 32K. MUD IN 9.8/36, MUD OUT 9.8/37 LCM 4%. 30' SLIDE @ 40' HR. 4% SLIDE 96% ROTATION. 0' FLARE. NO LOSSES AT THIS TIME. (GENERATORS OVER HEATING FROM EXTRA LOAD ON PUMPS.)
	15:30 - 20:30	5.00	DRLPRO	02	D	P		DRILL SLIDE 8743'-9015' (272', 54'/HR) 'WOB 19-23K AVE WOB 22K, SPM 105, GPM 472, PSI ON/OFF 2050/1650, DIFF 400, MOT RPM 75, ROT 35-40, TOR ON/OFF/UP 13/12/12, PU/SO/ROT 221/168/187, DRAG 34K. MUD IN 10.0/36, MUD OUT 10.0/37 LCM 6%. 15' SLIDE @ 30' HR. 5.5% SLIDE 94.5% ROTATION. 0' FLARE. NO LOSSES AT THIS TIME. (DROPPED TO 1 PUMP AND RAN 472 GAL DURING THE HEAT OF DAY SO GENERATORS WOULD NOT OVER HEAT FROM EXTRA LOAD.) (BOP DRILL 42 SECONDS)
	20:30 - 0:00	3.50	DRLPRO	02	D	P		DRILL 9015'-9214' (199', 57'/HR) 'WOB 19-23K AVE WOB 22K, SPM 120, GPM 540, PSI ON/OFF 2600/2200, DIFF 400, MOT RPM 86, ROT 35-40, TOR ON/OFF/UP 12/14/14, PU/SO/ROT 234/173/191, DRAG 43K. MUD IN 10.4/40, MUD OUT 10.4/38 LCM 8%. 0' SLIDE 100% ROTATION. 0' FLARE. NO LOSSES.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
6/9/2011	0:00 - 4:00	4.00	DRLPRO	02	D	P		DRILL 9214'-9420' (206', 51'/HR) 'WOB 19-23K AVE WOB 22K, SPM 120, GPM 540, PSI ON/OFF 2600/2200, DIFF 400, MOT RPM 86, ROT 35-40, TOR ON/OFF/UP 14/15/15, PU/SO/ROT 250/185/196, DRAG 56K. MUD IN 10.7/38, MUD OUT 10.7/41 LCM 8%. 0' SLIDE 100% ROTATION. 0' FLARE. HOLE STARTED TAKING APPROX 200 BBLS HR @ 9420'.
	4:00 - 6:00	2.00	DRLPRO	22	G	X		LOSS PARTIAL CIRC. HOLE TAKING 200 BLS HR. REDUCE PUMPS TO 180 BBLS. WORK PIPE UP AND DOWN. WHILE INCREASING LCM TO 20% IN SUCTION. INCREASED PUMP TO 225 GPM. CONTAINING LOSSES W/ 20%. INCREASE PUMP TO 405 GPM. HOLE SEEPING 10 BBLS HR W/ 16% LCM COMING BACK. TOTAL LOSSES OF 120 BBLS .
	6:00 - 15:00	9.00	DRLPRO	02	D	P		DRILL 9420'-9726' (306',34'/HR) 'WOB 20-26K AVE WOB 24K, SPM 105, GPM 472, PSI ON/OFF 2200/1800, DIFF 400, MOT RPM 75, ROT 35-40, TOR ON/OFF/UP 12/14/14, PU/SO/ROT 259/187/201, DRAG 58K. MUD IN 11.0/40, MUD OUT 10.9/38 LCM 23%. 0' SLIDE 100% ROTATION. WELL WAS SEEPING 10 BBLS WHILE DRILLING FROM 9420'-9450' W/ 405 GPM ON PUMP. RAISED LCM TO 21% AROUND TO CONTROL LOSSES. (LOSS 10 BBLS). 2' CONNECTION FLARE WITH 10.8 MUD WT. BIT STOPPED DRILLING.
	15:00 - 17:30	2.50	DRLPRO	06	A	P		PUMP AND ROT OUT TO 8000'. 50-60 K OVER PULL COMING OFF BOTTOM PUMPING AND ROTATING. HOLE TAKEN EXPECTED AMOUNT OF FLUID. 12 BBLS OF STEEL DISPLACEMENT, LOSS APPROX 10 BBS OF MUD INTO CELLAR. MIX DRY JOB WHILE PUMPING AND PULLING. PUMP 35 BBLS 13# PILL DRY JOB.
	17:30 - 22:30	5.00	DRLPRO	06	A	P		TRIP OUT OF HOLE. 60K-20K DRAG WITH NO PUMP OR ROT. FROM 8000'-6000' (NORMAL DRAG). TIGHT SPOT @ 5270' GRABBED AND RELEASED. STICKY HOLE FROM 3400-3100' 15K DRAG. STAND BACK DIR. BHA. CHECK MOTOR 40.5 HRS, BREAK BIT. FUNCTION PIPE RAMS AND BLIND RAMS. NO FLOW OR GAIN ON TRIP.
	22:30 - 0:00	1.50	DRLPRO	06	A	P		M/U BIT #3 Q506F W/ 6-16'S, SN 7027127 ON BAKER INTEQ MOTOR 1.5 BH .16 RPG W/ 40.5 HRS. M/U DIRECTIONAL BHA. TRIP IN HOLE.
6/10/2011	0:00 - 4:30	4.50	DRLPRO	06	A	P		TRIP IN HOLE. NO TIGHT HOLE TILL 8000'. FILL PIPEAND BREAK CIRC AT 3000' AND 5000'.
	4:30 - 5:00	0.50	DRLPRO	03	E	P		WASH AND REAM 2-5' BRIDGES ON TRIP IN @ 8000', 8300' AND 8700'. GOOD CIRC THROUGH OUT. TRIP IN 2 TO 3 STAND BETWEEN BRIDGES.
	5:00 - 5:30	0.50	DRLPRO	06	A	P		FINISH TRIPPING IN TO 9500'. HOLE STICKY ON BOTTOM.
	5:30 - 6:00	0.50	DRLPRO	03	D	P		WASH AND REAM TO BOTTOM. 9500'-9726'. 20' FILL ON BOTTOM OF HOLE. 15'-20' FLARE ON BOTTOMS UP. GOOD CIRC. NO LOSSES OR GAINS ON TRIP.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:00 - 16:00	10.00	DRLPRO	02	D	P		DRILL 9726'- 10102' (376', 38'/HR) 'WOB 18-24K AVE WOB 20K, SPM 105, GPM 472, PSI ON/OFF 2250/1850, DIFF 400, MOT RPM 75, ROT 35-40, TOR ON/OFF/UP 12/14/15, PU/SO/ROT 255/197/210, DRAG 45K. MUD IN 11.6/41, MUD OUT 11.6/41 LCM 24%. 0' SLIDE 100% ROTATION. NO LOSSES. RAISING WT FOR TD. 10' CONNECTION GAS.
	16:00 - 16:30	0.50	DRLPRO	07	A	P		RIG SERVICE. FUNCTION PIPE RAMS. FUNCTION ANNULLAR. SERVICE TOP DRIVE.
	16:30 - 23:00	6.50	DRLPRO	02	D	P		DRILL 10102'-10311' (209', 32'/HR) TD 6/10/2011 23:00 'WOB 18-26K AVE WOB 24K, SPM 105, GPM 472, PSI ON/OFF 2450/2000, DIFF 450, MOT RPM 75, ROT 40-45, TOR ON/OFF/UP 15/12/15, PU/SO/ROT 255/199/213, DRAG 42K. MUD IN 12/43, MUD OUT 12/46 LCM 27%. 0' SLIDE 100% ROTATION. 10' CONNECTION FLARES. NO LOSSES.
	23:00 - 0:00	1.00	CSG	05	C	P		HALLIBURTON LOGGERS WILL BE UNABLE TO SHOW FOR LOGS ON THIS WELL. WE WILL NEED TO GET LOGS ON THE NEXT 2 WELLS. READY MUD TO RUN CSG. CIRCULATE RAISE MUD WT. 12.2 VIS 41 LCM 27%.
6/11/2011	0:00 - 1:00	1.00	CSG	05	C	P		CCH. MUD WT 12.2 VIS 41 LCM 27%. MIX 35 BBL 14.3# PILL FOR DRY JOB. HOLD DRY JOB. NO FLOW.
	1:00 - 2:30	1.50	CSG	06	D	P		PUMP AND ROTATE OUT OF HOLE TO 9400' (80 K DRAG) NORMAL DRAG. PULL 3 STD AT 9400' WITH NO PUMP AND NO ROT. (70 K DRAG) PUMP DRY JOB. (LOSS 7 BBLS OF MUD INTO CELLAR)
	2:30 - 5:30	3.00	CSG	06	D	P		TRIP OUT OF HOLE. NORMAL DRAG. TRIP OUT TO 4600'. NO TIGHT HOLE TO 4600'. HOLE TAKING EXACT FLUID. 39 BBLS OF MUD TO FILL HOLE TO 4600'.
	5:30 - 6:00	0.50	MAINT	08	A	Z		LOST COMMUNICATIONS W/ IDM. TROUBLE SHOOT PROBLEM.
	6:00 - 10:30	4.50	CSG	06	D	P		TRIP OUT OF HOLE. NO TIGHT HOLE ON TRIP. PULL ROT HEAD RUBBER. STAND BACK HWDP. PULL EM TOOL. STAND BACK DIRECTIONAL ASSEMBLY. BREAK BIT (POSSIBLE DBR) AND LD MUD MOTOR AND REMOVE FROM CAT WALK. HOLE TOOK EXACT FLUID. 10 BBLS OF MUD IN CELLAR WHEN PIPE CAME WET @ 1500'. PUMPED CELLAR TO STEEL PITS. P/U STD AND PULL WEAR BUSHING. RIG CENTERED AND LEVEL OVER HOLE.
	10:30 - 11:30	1.00	CSG	12	A	P		HOLD SAFETY MEETING WITH KIMZEY CSG. GO OVER CSG RUNNING PROCEDURES. COVER SAFETY SPECIFICS OF RIG. REMOVE RIG ELEVATORS AND INSTALL CSG ELEVATORS. INSTALL CSG SPEAR ON TOP DRIVE. P/U SLIPS, CSG TONGES, BACK UP TONGES AND RIG UP TO RUN CSG. PICK OF SHOE JT @ 11:15.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	11:30 - 19:30	8.00	CSG	12	C	P		PICK UP P-110 SHOE JT, MAKE UP OPEN FLOAT SHOE AND OPEN FLOAT COLLAR WITH THREAD LOCK. RUN IN HOLE W/ 13 JTS OF 4.5", P-110, 11.6# BTC CSG FOR TOTAL OF 529'. RUN 236 JTS OF 4.5" I-80 11.6# BTC CSG. (249 JTS TOTAL). RAN 15 CENTRALIZERS FIRST 3 JTS THEN EVERY THIRD JT TILL GONE. INSTALL ROT HEAD RUBBER AFTER CENTRALIZER WERE INSTALLED. SET BOTTOM FLOAT SHOE 10291'KB. SET TOP OF FLOAT COLLAR 10247'KB. SET TOP OF MESA VERDE MARKER JTS @ 8089' KB. SET TOP OF WASATCH MARKER JT @ 5132' KB. (PIPE STOPPED AUTO FILLING @ 5100') BREAK CIRC. 5400' AND 8000'. RIG UP BJ CEMENT HEAD.
	19:30 - 20:30	1.00	CSG	05	D	P		CIRC BOTTOMS UP GAS. 10' FLARE ON BOTTOMS UP. GOOD CIRC. RIG DOWN CSG CREW. RIG UP CEMENTERS. HOLD SAFETY MEETING WITH CEMENTERS. COVER JOB SPECIFICS OF CEMENTING.
	20:30 - 23:00	2.50	CSG	12	E	P		PRESSURE TEST TO 4500 PSI. PUMP 40 BBLS FRESH WATER AHEAD. PUMP 240 BBLS (620 SX) OF 12.2 PPG 2.17 YD 11.79 GAL/SK LEAD CEMENT. PUMP 253. BBLS (1085 SX) OF 14.3# 1.31 YD 5.41 GAL/SK. POZ 50/50 TAIL CEMENT. SHUT DOWN FLUSH LINES. DROP TOP PLUG AND DISPLACE W/ 159 BBLS OF FRESH WATER TREATED W/ CLAYCARE AND MAGNACIDE. CIRC THROUGH OUT. FULL CIRC. 30 BBLS OF WATER TO PIT. LIFT PSI OF 2800 @ 3 BBLS MIN. BUMP PLUG 3540 PSI. . PRESSURE HELD 5 MINS. FLOAT HELD. FLOW BACK 1.5 BBLS. EST. TOC FOR LEAD 168', EST TOC FOR TAIL 4634'. RIG DOWN CEMENTERS. FLUSH STACK WITH RESERVE PIT WATER.
	23:00 - 0:00	1.00	RDMO	14	A	P		SET C-22 SLIPS THROUGH FLOOR W/ 90 K ON SLIPS. REMOVE TURN BUCKLES. UNDO FLOW LINE. UNDO QUICK FLANGE ON BOP.
6/12/2011	0:00 - 3:00	3.00	RDMO	14	A	P		P/U SLING LINES. TIE ON TO STACK. P/U STACK AND CUT OFF 15' OF CSG. CLEAN PITS. RELEASE RIG 6/12/2011 03:00.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 6/12/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	3:00 - 3:00	0.00	RDMO					CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28 SPUD DATE/TIME: 5/18/2011 18:30 SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,795 Total SURFACE hours: 38.50 Surface Casing size: 9-5/8" # of casing joints ran: 5-Mar Casing set MD: 2,766.0 # sx of cement: 200/225/100 Cement blend (ppg:) 11/15.8/15/8 Cement yield (ft3/sk): 3.82/1.15/1.15 # of bbls to surface: 35 Describe cement issues: NONE Describe hole issues: NONE Rig Move/Skid start date/time: 6/1/2011 21:00 Rig Move/Skid finish date/time: 6/4/2011 4:00 Total MOVE hours: 55.0 Prod Rig Spud date/time: 6/4/2011 20:00 Rig Release date/time: 6/12/2011 3:00 Total SPUD to RR hours: 175.0 Planned depth MD 10,311 Planned depth TVD 10,137 Actual MD: 10,311 Actual TVD: 10,142 Open Wells $: AFE $: Open wells $/ft: PRODUCTION HOLE: Prod. From depth: 2,799 Prod. To depth: 10,311 Total PROD hours: 104.5 Log Depth: NO LOGS (HALLIBURTON UNAVAILBLE) Production Casing size: 4.5 P110 & 4.5 I-80 # of casing joints ran: 13 JTS OF P-110, 236 JTS OF I-80 Casing set MD: 10,291.0 # sx of cement: 1,705 Cement blend (ppg:) LEAD 12.2, TAIL 14.3 Cement yield (ft3/sk): LEAD 2.17, TAIL 1.31 Est. TOC (Lead & Tail) or 2 Stage : LEAD 168', TAIL 4634' Describe cement issues: NO ISSUES Describe hole issues: HARD FORMATIONS 3 BITS DIRECTIONAL INFO: KOP: 367 Max angle: 23.57 Departure: 1092.00 Max dogleg MD: 3792' 3.32 DOG LEG

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 921-22C4BS RED		
Common Name	NBU 921-22C4BS		
Well Name	NBU 921-22C4BS	**Wellbore No.**	OH
Report No.	1	**Report Date**	8/15/2011
Project	UTAH-UINTAH	**Site**	NBU 921-15N PAD
Rig Name/No.		**Event**	COMPLETION
Start Date	8/15/2011	**End Date**	8/23/2011
Spud Date	5/18/2011	**Active Datum**	RKB @4,839.00ft (above Mean Sea Level)
UWI	NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0		

1.3 General

Contractor	CUTTERS WIRELINE	**Job Method**	PERFORATE	**Supervisor**	KEN WARREN
Perforated Assembly	PRODUCTION CASING	**Conveyed Method**	WIRELINE		

1.4 Initial Conditions

Fluid Type		**Fluid Density**	
Surface Press		**Estimate Res Press**	
TVD Fluid Top		**Fluid Head**	
Hydrostatic Press		**Press Difference**	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	7,130.0 (ft)-10,038.0 (ft)	**Start Date/Time**	8/15/2011 12:00AM
No. of Intervals	42	**End Date/Time**	8/15/2011 12:00AM
Total Shots	228	**Net Perforation Interval**	70.00 (ft)
Avg Shot Density	3.26 (shot/ft)	**Final Surface Pressure**	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (ft)	CCL-TS (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	WASATCH/			7,130.0	7,134.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (ft)	CCL-TS (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	WASATCH/			7,218.0	7,220.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	WASATCH/			7,519.0	7,520.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	WASATCH/			7,621.0	7,624.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	WASATCH/			7,774.0	7,776.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	WASATCH/			7,952.0	7,953.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,089.0	8,091.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,118.0	8,120.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,166.0	8,168.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,234.0	8,235.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,315.0	8,316.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,335.0	8,336.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,362.0	8,364.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,390.0	8,391.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,445.0	8,446.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,456.0	8,457.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,520.0	8,522.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,564.0	8,566.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,659.0	8,661.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,757.0	8,758.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,848.0	8,850.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,946.0	8,947.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (ft)	CCL-TS (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	MESAVERDE/			8,990.0	8,991.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,036.0	9,037.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,056.0	9,058.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,194.0	9,198.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,265.0	9,267.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,395.0	9,396.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,438.0	9,440.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,460.0	9,462.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,484.0	9,486.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,527.0	9,528.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,572.0	9,574.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,604.0	9,606.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,624.0	9,626.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,646.0	9,648.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,745.0	9,746.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,799.0	9,800.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,861.0	9,862.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,911.0	9,912.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,973.0	9,975.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			10,037.0	10,038.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

3 Plots

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011	End Date: 8/23/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/11/2011	7:00 - 13:00	6.00	COMP	33	C	P		FILL SURFACE CSG MOVE IN B &C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 6 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 31 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 75 PSI. .
8/12/2011	7:00 - 13:00	6.00	COMP	37		P		PER STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS STAGE DESIGN POOH SWIFW.
8/15/2011	6:45 - 7:00	0.25	COMP	48		P		HELD SAFETY MEETING HIGH PRESSURE & THUNDERSTORMS
	7:00 - 18:00	11.00	COMP	36		P		FRAC STG 1)WHP 1753 PSI, BRK 4311 PSI @ 4.8 BPM. ISIP 3487 PSI, FG .79 PUMP 100 BBLS @ 41.1 BPM @ 5700 PSI = 100% HOLES OPEN. ISIP 2987 PSI, FG .74, NPI -500 PSI. MP 6538 PSI, MR 50.5 BPM, AP 5979 PSI, AR 50.1 BPM, PMP 776 BBLS SW & 10,655 LBS OF 30/50 SND & NO RESIN SND. TOTAL PROP 10,655 LBS X-OVER FOR W L PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9678' ATTEMT TO SHEAR OFF PLUG COULDN'T. PULLED OUT OF ROPE SOCKET. POOH S W I FISH TOP @ 9649' TOTAL FISH LENGTH = 29'
8/16/2011	7:00 - 18:00	11.00	COMP	36	B	P		WAIT ON RIG TO FISH PERF STRING
8/18/2011	14:00 - 18:30	4.50	COMP	31	B	P		MIRU, N/D WELL HEAD, N/U BOP, R/U TBG EQUIP, P/U 3-/78 OD OVER SHOT W/ 3-1/16 GRAPPLE, COULD NOT GET THROUGH TBG HEAD, N/D BOPS, LOOK IN TBG HEAD, WAS NOT GOING PAST HANGER SEAT, CALLED WEATHERFORD TO GET NEW HEAD IN A.M, PUT BOPS BACK ON WELL SDFN.
8/19/2011	6:46 - 7:00	0.23	COMP	48		P		HSM, POOH W/ LIVE GUNS
	7:00 - 18:30	11.50	COMP	31	B	P		STILL COULD NOT GET 3-7/8 TOOLS THROUGH NEW TBG HEAD, DID NOT REPLACE OLD TBG HEAD, P/U 1-7/16 OVER SHOT TO RIH AND TRY TO FISH WIRELINE ROPE SOCKET. P/U RIH W/ 2-3/8 TBG, TAG SAND @=9,635', R/U CIRC EQUIP, CIRC DN TO FISH TOP @=9,657' LATCHED ON FISH, PULLED 11,000# OVER STRING WEIGHT, DRAGGINNG UP HOLE, WORKED FISH UP & DOWN KEPT LOOSING HOLE, CIRC HOLE CLEAN, POOH W/ 81 JNTS EOT @=7,111' SWIFN.
8/20/2011	6:45 - 7:00	0.25	COMP	48		P		HSM. SIME OPS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011	End Date: 8/23/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 18:00	11.00	COMP	31	B	P		OPEN WELL 0 PSI. CONT POOH W/ 112 STG & FISHING EQUIP. (3 3/4 OS W/ 1 7/16 GRAPLE, 3' DRAIN SUB, BS, JAR, X-OVER SUB, 6' PUP JT.) LD SETTING TOOL, GUNS & CCL. RD FISHING EQUIP. RACK OUT RIG FLOOR & TBG EQUIP. ND BOP. NU FRAC VALVES. RIG PUMP T/ CSG. PSI TEST CBP T/ 3000 PSI. HELD FOR 10 MIN. GOOD TEST. BLEED OFF PSI. PERF STG 2)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH ATTM T/ SHOOT. GUNS WENT SHOWED OPEN. POOH. FOUND THAT 1ST GUN HAD FIRED. RIH FINISH PERFING AS PER STG 2 PERF DESIGN. POOH. X-OVER FOR FRAC CREW. FRAC STG 2)WHP 400 PSI, BRK 4911 PSI @ 4.7 BPM. ISIP 3244 PSI, FG .78. CALC PERFS OPEN @ 34.1 BPM @ 6247 PSI = 60% HOLES OPEN. ISIP 3273 PSI, FG .78, NPI 29 PSI. MP 6467 PSI, MR 41.2 BPM, AP 6223 PSI, AR 38.9 BPM, PMP 696 BBLS SW & 10,655 LBS OF 30/50 SND. SWI, X-OVER FOR WL. PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 9552' P/U PERF AS PER STG 3 PERF DESIGN. POOH, X-OVER FOR FRAC CREW. FRAC STG 3)WHP 1264 PSI, BRK 3507 PSI @ 4.5 BPM. ISIP 2943 PSI, FG .75. CALC PERFS OPEN @ 39.5 BPM @ 6010 PSI = 65% HOLES OPEN. ISIP 3028 PSI, FG .76, NPI 85 PSI. MP 6559 PSI, MR 41.1 BPM, AP 6252 PSI, AR 39.5 BPM, PMP 631 BBLS SW & 10,794 LBS OF 30/50 SND. SWI, X-OVER FOR WL. PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9297' P/U PERF AS PER STG 4 PERF DESIGN. POOH, X-OVER FOR FRAC CREW FRAC STG 4)WHP 1430 PSI, BRK 6769 PSI @ 1.4 BPM. ISIP 2847 PSI, FG .75. CALC PERFS OPEN @ 34.6 BPM @ 6344 PSI = 60% HOLES OPEN. ISIP 2961 PSI, FG .76, NPI 114 PSI. MP 6867 PSI, MR 51.7 BPM, AP 6121 PSI, AR 41.7 BPM, PMP 681 BBLS SW & 10,958 LBS OF 30/50 SND. SWIFN.
8/21/2011	6:45 - 7:00	0.25	COMP	48		P		HSM. SIM OPS

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011	End Date: 8/23/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 18:00	11.00	COMP	36	B	P		OPEN WELL 2500 PSI. PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 9088' P/U PERF AS PER STG 5 PERF DESIGN. POOH, X-OVER FOR FRAC CREW. FRAC STG 5)WHP 1817 PSI, BRK 4592 PSI @ 4.6 BPM. ISIP 3286 PSI, FG .81. CALC PERFS OPEN @ 47.4 BPM @ 5277 PSI = 100% HOLES OPEN. ISIP 3013 PSI, FG .78, NPI -273 PSI. MP 6359 PSI, MR 53.1 BPM, AP 5734 PSI, AR 50 BPM, PMP 639 BBLS SW & 11,043 LBS OF 30/50 SND. SWI, X-OVER WL. PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8788' P/U PERF AS PER STG 6 PERF DESIGN. POOH. X-OVER FOR FRAC CREW. FRAC STG 6)WHP 1400 PSI, BRK 3601 PSI @ 4.6 BPM. ISIP 2727 PSI, FG .75. CALC PERFS OPEN @ 40.5 BPM @ 6125 PSI = 70% HOLES OPEN. ISIP 2623 PSI, FG .74, NPI -109 PSI. MP 6423 PSI, MR 51.4 BPM, AP 5914 PSI, AR 47.7 BPM, PMP 637 BBLS SW & 11,166 LBS OF 30/50 SND. SWI, X-OVER FOR WL. PERF STG 7)PU 4 1/2 8IK HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8487' P/U PERF AS PER STG 7 PERF DESIGN. POOH, X-OVER FOR FRAC CREW. FRAC STG 7)WHP 1994 PSI, BRK 3208 PSI @ 4.2 BPM. ISIP 2158 PSI, FG .70. CALC PERFS OPEN @ 52.1 BPM @ 5909 PSI = 79% HOLES OPEN. ISIP 2487 PSI, FG .74, NPI 329 PSI. MP 6297 PSI, MR 52.9 BPM, AP 5398 PSI, AR 51.5 BPM, PMP 887 BBLS SW & 16,998 LBS OF 30/50 SND. SWI, X-OVER FOR WL. PERF STG 8)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8198' P/U PERF AS PER STG 8 PERF DESIGN. POOH. X-OVER FOR FRAC CREW. FRAC STG 8)WHP 1010 PSI, BRK 3481 PSI @ 4.6 BPM. ISIP 2683 PSI, FG .77. CALC PERFS OPEN @ 47.9 BPM @ 5132 PSI = 100% HOLES OPEN. ISIP 2812 PSI, FG .79, NPI 129 PSI. MP 5608 PSI, MR 52.7 BPM, AP 5114 PSI, AR 50.7 BPM, PMP 634 BBLS SW & 11,439 LBS OF 30/50 SND. SWI, X-OVER FOR WL. PERF STG 9)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7806' P/U PERF AS PER STG 9 PERF DESIGN. POOH. X-OVER FOR FRAC CREW.

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011	
Project: UTAH-UINTAH	Site: NBU 921-15N PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011		End Date: 8/23/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
								FRAC STG 9)WHP 565 PSI, BRK 3180 PSI @ 4.6 BPM. ISIP 2088 PSI, FG .71. CALC PERFS OPEN @ 48.7 BPM @ 4945 PSI = 88% HOLES OPEN. ISIP 2461 PSI, FG ..76, NPI 337 PSI. MP 6090 PSI, MR 51.8 BPM, AP 5454 PSI, AR 50.4 BPM, PMP 634 BBLS SW & 17,353 LBS OF 30/50 SND. SWI, X-OVER FOR WL. PERF STG 10)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7250' P/U PERF AS PER STG 10 PERF DESIGN. POOH, X-OVER FOR FRAC CREW. FRAC STG 10)WHP 443 PSI, BRK 1915 PSI @ 4.4 BPM. ISIP 1021 PSI, FG .58. CALC PERFS OPEN @ 51 BPM @ 5336 PSI = 67% HOLES OPEN. ISIP 1927 PSI, FG .71, NPI 906 PSI. MP 5417 PSI, MR 51.9 BPM, AP 4353 PSI, AR 51 BPM, PMP 755 BBLS SW & 27,043 LBS OF 30/50 SND. PUMPED EXTRA 10K OF SAND T/ EMPTY SAND MASTER. SWI, X-OVER FOR WL. DONE FRACING THIS WELL. PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 7076'. POOH. SWIFN. RDMO CASED HOLE SOLUTION & SUPERIOR FRAC SERV. TOTAL SAND =138,104 LBS TOTAL CLFL = 6970 BBLS TOTAL SCALE = 752 GAL TOTAL BIO = 124 GAL.
8/22/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, TRIPPING TBG.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011	End Date: 8/23/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 17:00	9.75	COMP	31	I	P		RD FLOOR, ND FRAC VALVE, NU BOP, RU FLOOR & TBG EQUIP, RIH L/D 30 JTS, RU POWER SWIVEL, FILL TBG & BREAK CIRC, PRESS TEST BOP TO 3,000 PSI, LOST 0 PSI IN 15 MIN, START DRLG PLUGS, SURFACE VALVE OPEN &LOCKED. C/O 20' SAND, TAG 1ST PLUG @ 7,076' DRL PLUG IN 8 MIN. 500 PSI INCREASE RIH, CSG PRESS 50 PSI. C/O 25' SAND, TAG 2ND PLUG @ 7,250' DRL PLUG IN 9 MIN. 600 PSI INCREASE RIH, CSG PRESS 75 PSI. C/O 20' SAND, TAG 3RD PLUG @ 7,806' DRL PLUG IN 8 MIN. 600 PSI INCREASE RIH, CSG PRESS 75 PSI. C/O 20' SAND, TAG 4TH PLUG @ 8,198' DRL PLUG IN 7 MIN. 800 PSI INCREASE RIH, CSG PRESS 100 PSI. C/O 20' SAND, TAG 5TH PLUG @ 8,487' DRL PLUG IN 6 MIN. 400 PSI INCREASE RIH, CSG PRESS 125 PSI. LET WELL CLEAN UP FOR 20 MIN, D/O REMAINING PLUGS IN AM, SWI, SDFN.
8/23/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, LANDING TBG

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011	
Project: UTAH-UINTAH	Site: NBU 921-15N PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011		End Date: 8/23/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 13:00	5.75	COMP	44	C	P		SICP 1,400 PSI, OPEN WELL HAD LITTLE PUFF OF GAS THEN MOSTLY WATER, D/O REMAINING PLUGS, SURFACE CSG VALVE OPEN & LOCKED. C/O 20' SAND, TAG 6TH PLUG @ 8,788' DRL PLUG IN 7 MIN. 500 PSI INCREASE RIH, CSG PRESS 200 PSI. C/O 15' SAND, TAG 7TH PLUG @ 9,088' DRL PLUG IN 7 MIN. 400 PSI INCREASE RIH, CSG PRESS 225 PSI. C/O 30' SAND, TAG 8TH PLUG @ 9,297' DRL PLUG IN 8 MIN. 400 PSI INCREASE RIH, CSG PRESS 300 PSI. C/O 20' SAND, TAG 9TH PLUG @ 9,556' DRL PLUG IN 6 MIN. 500 PSI INCREASE RIH, CSG PRESS 400 PSI. C/O 20' SAND, TAG 10TH PLUG @ 9,678' DRL PLUG IN 7 MIN. 500 PSI INCREASE RIH, CSG PRESS 400 PSI. PBTD @ 10,246', BTM PERF @ 10,038', RIH TAG @ 10,170', 132' PAST BTM PERF W/ 322 JTS 2 3/8" L-80 TBG, LD 21 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 301 JTS 2 3/8" L-80, EOT 9,524.69'. RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 2,700 PSI, LET BIT FALL FOR 20 MIN. TURN OVER TO FLOW BACK CREW, RD & MOVE TO NEXT WELL ON PAD. KB= 14' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 334 JTS 301 JTS 2 3/8" L-80 = 9,508.66' TBG USED 301 JTS POBS= 2.20' TBG RETURNED 1 JTS W/ BAD THREADS EOT @ 9,524.69' TRANSFER 32 JTS TO NEXT WELL ON PAD TWTR= 6,749 BBLS TWR= 1,500 BBLS TWLTR= 5,249 BBLS CALLED CDC TALKED TO SONNY
8/24/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2400#, TP 1900#, 20/64" CK, 44 BWPH, LIGHT SAND, 1606 GAS TTL BBLS RECOVERED: 2584 BBLS LEFT TO RECOVER: 4165
8/25/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2700#, TP 1850#, 20/64" CK, 32 BWPH, LIGHT SAND, 2272 GAS TTL BBLS RECOVERED: 3492 BBLS LEFT TO RECOVER: 3257
8/26/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2425#, TP 1625#, 20/64" CK, 24 BWPH, LIGHT SAND, 2388 GAS TTL BBLS RECOVERED: 4168 BBLS LEFT TO RECOVER: 2581

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22C4BS RED	Spud Conductor: 5/14/2011	Spud Date: 5/18/2011	
Project: UTAH-UINTAH	Site: NBU 921-15N PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011		End Date: 8/23/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/360/W/0/2153/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/27/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2225#, TP 1450#, 20/64" CK, 18 BWPH, LIGHT SAND, 2238 GAS TTL BBLS RECOVERED: 4682 BBLS LEFT TO RECOVER: 2067

Scientific Drilling
Rocky Mountain Operations

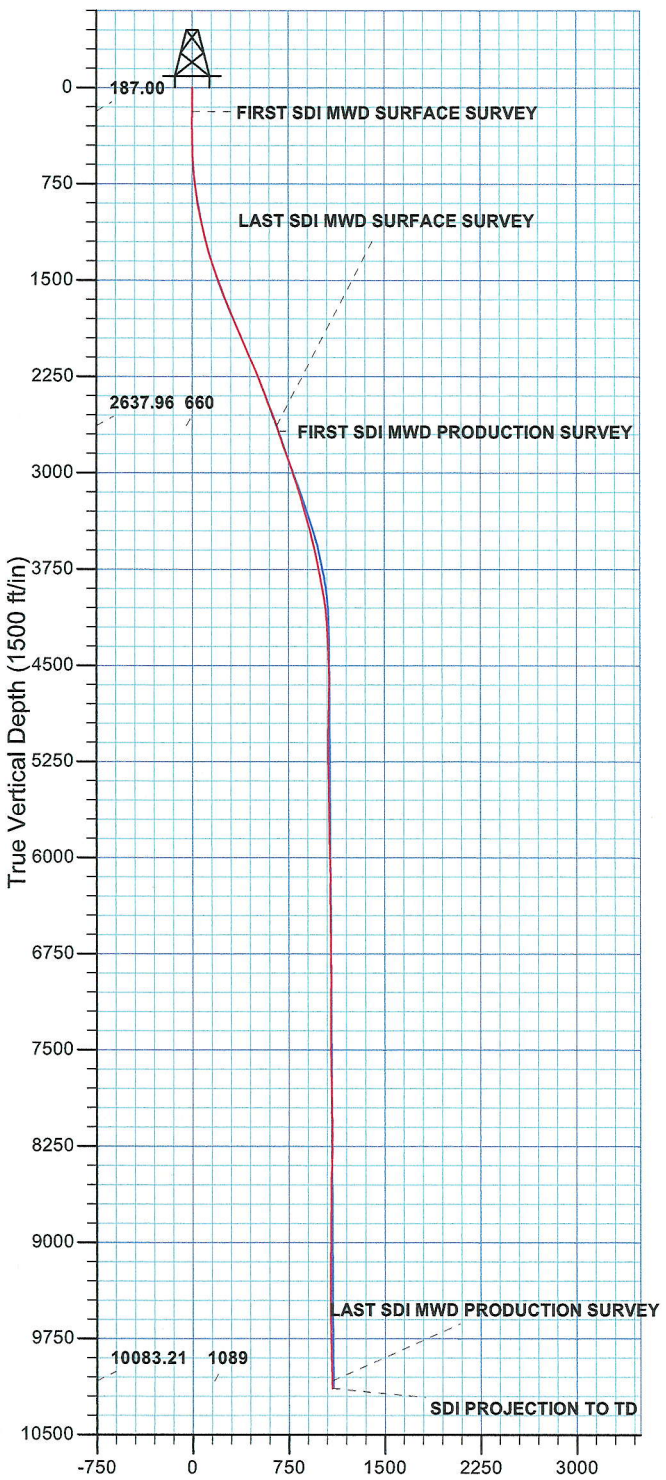
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22C4BS
Wellbore: OH
Design: OH

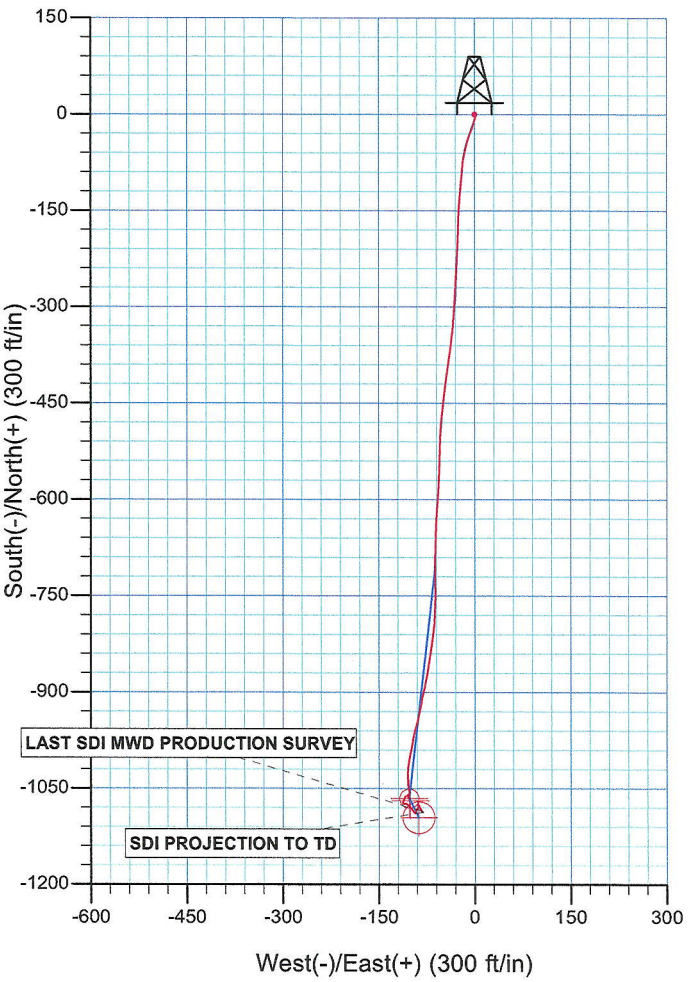
Anadarko Petroleum Corporation

WELL DETAILS: NBU 921-22C4BS					
GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)					
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	14540265.88	2049430.75	40° 1' 47.435 N	109° 32' 20.152 W

Azimuths to True North
Magnetic North: 11.11°

Magnetic Field
Strength: 52350.2snT
Dip Angle: 65.89°
Date: 05/12/2011
Model: IGRF2010





PROJECT DETAILS: Uintah County, UT UTM12	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 22 T9S R21E
System Datum:	Mean Sea Level

Design: OH (NBU 921-22C4BS/OH)

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-15N Pad
NBU 921-22C4BS

OH

Design: OH

Standard Survey Report

16 June, 2011

Anadarko
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22C4BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-15N Pad, SECTION 22 T9S R21E				
Site Position:		**Northing:**	14,540,265.88 usft	**Latitude:**	40° 1' 47.435 N
From:	Lat/Long	**Easting:**	2,049,430.74 usft	**Longitude:**	109° 32' 20.152 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.94 °

Well	NBU 921-22C4BS, 360 FSL 2153 FWL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,540,265.88 usft	**Latitude:**	40° 1' 47.435 N
	+E/-W	0.00 ft	**Easting:**	2,049,430.74 usft	**Longitude:**	109° 32' 20.152 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,827.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	05/12/2011	11.11	65.89	52,350

Design	OH					
Audit Notes:						
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**		0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**		
	0.00	0.00	0.00	183.59		

Survey Program **Date** 06/16/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
5.00	2,751.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,795.00	10,311.00	Survey #2 MWD SDI PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
187.00	0.53	96.80	187.00	-0.10	0.84	0.05	0.29	0.29	0.00
FIRST SDI MWD SURFACE SURVEY									
278.00	0.88	70.17	277.99	0.09	1.91	-0.21	0.52	0.38	-29.26
368.00	1.06	192.86	367.98	-0.49	2.38	0.34	1.89	0.20	136.32
463.00	2.11	192.86	462.95	-3.05	1.79	2.93	1.11	1.11	0.00
554.00	3.25	196.91	553.85	-7.15	0.67	7.10	1.27	1.25	4.45
649.00	5.19	197.87	648.58	-13.82	-1.43	13.88	2.04	2.04	1.01
744.00	6.77	200.86	743.06	-23.14	-4.75	23.39	1.69	1.66	3.15

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22C4BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
840.00	8.27	199.46	838.24	-34.94	-9.06	35.44	1.57	1.56	-1.46
940.00	10.11	194.53	936.95	-50.22	-13.66	50.98	2.00	1.84	-4.93
1,034.00	11.70	189.09	1,029.25	-67.62	-17.24	68.56	2.01	1.69	-5.79
1,129.00	13.19	185.39	1,122.02	-87.92	-19.78	88.99	1.78	1.57	-3.89
1,224.00	15.12	185.04	1,214.13	-111.06	-21.88	112.21	2.03	2.03	-0.37
1,319.00	16.18	183.99	1,305.61	-136.60	-23.89	137.83	1.15	1.12	-1.11
1,415.00	17.85	182.41	1,397.40	-164.65	-25.44	165.92	1.80	1.74	-1.65
1,510.00	20.14	182.23	1,487.22	-195.54	-26.69	196.83	2.41	2.41	-0.19
1,606.00	20.93	182.14	1,577.12	-229.19	-27.97	230.49	0.82	0.82	-0.09
1,700.00	21.54	182.32	1,664.74	-263.21	-29.30	264.53	0.65	0.65	0.19
1,795.00	22.42	184.08	1,752.83	-298.71	-31.29	300.08	1.16	0.93	1.85
1,890.00	23.21	186.62	1,840.40	-335.38	-34.74	336.89	1.33	0.83	2.67
1,984.00	23.39	187.33	1,926.74	-372.28	-39.26	374.01	0.35	0.19	0.76
2,080.00	23.39	187.86	2,014.85	-410.06	-44.30	412.03	0.22	0.00	0.55
2,175.00	23.57	186.71	2,101.98	-447.60	-49.09	449.80	0.52	0.19	-1.21
2,270.00	23.48	183.90	2,189.09	-485.35	-52.60	487.69	1.18	-0.09	-2.96
2,365.00	22.34	181.88	2,276.60	-522.28	-54.48	524.66	1.46	-1.20	-2.13
2,458.00	21.19	182.49	2,362.96	-556.74	-55.79	559.14	1.26	-1.24	0.66
2,547.00	20.22	182.67	2,446.22	-588.17	-57.20	590.60	1.09	-1.09	0.20
2,649.00	20.05	184.08	2,541.98	-623.22	-59.27	625.71	0.50	-0.17	1.38
2,751.00	19.52	181.44	2,637.96	-657.70	-60.94	660.22	1.02	-0.52	-2.59
LAST SDI MWD SURFACE SURVEY									
2,795.00	19.35	182.99	2,679.46	-672.32	-61.51	674.85	1.23	-0.39	3.52
FIRST SDI MWD PRODUCTION SURVEY									
2,886.00	19.08	179.06	2,765.39	-702.25	-62.05	704.76	1.45	-0.30	-4.32
2,976.00	19.26	178.71	2,850.40	-731.80	-61.47	734.21	0.24	0.20	-0.39
3,067.00	19.26	181.43	2,936.31	-761.81	-61.51	764.16	0.99	0.00	2.99
3,158.00	18.38	185.21	3,022.44	-791.10	-63.19	793.50	1.65	-0.97	4.15
3,248.00	17.50	187.23	3,108.07	-818.66	-66.18	821.19	1.20	-0.98	2.24
3,339.00	16.27	188.29	3,195.14	-844.85	-69.74	847.55	1.39	-1.35	1.16
3,429.00	16.09	190.84	3,281.58	-869.57	-73.90	872.49	0.81	-0.20	2.83
3,520.00	16.80	192.68	3,368.86	-894.79	-79.16	897.99	0.97	0.78	2.02
3,610.00	15.83	189.52	3,455.23	-919.58	-84.05	923.04	1.46	-1.08	-3.51
3,701.00	14.51	195.23	3,543.07	-942.83	-89.10	946.55	2.19	-1.45	6.27
3,792.00	11.52	193.39	3,631.72	-962.67	-94.20	966.68	3.32	-3.29	-2.02
3,882.00	10.99	189.78	3,719.99	-979.87	-97.73	984.06	0.98	-0.59	-4.01
3,973.00	10.90	191.19	3,809.33	-996.85	-100.88	1,001.21	0.31	-0.10	1.55
4,063.00	9.50	187.32	3,897.91	-1,012.57	-103.47	1,017.06	1.73	-1.56	-4.30
4,154.00	8.35	181.61	3,987.81	-1,026.62	-104.62	1,031.16	1.59	-1.26	-6.27
4,245.00	7.03	176.86	4,077.99	-1,038.79	-104.50	1,043.29	1.61	-1.45	-5.22
4,335.00	4.92	166.23	4,167.50	-1,048.04	-103.28	1,052.45	2.64	-2.34	-11.81
4,426.00	3.78	180.47	4,258.24	-1,054.83	-102.37	1,059.17	1.72	-1.25	15.65
4,516.00	3.17	188.55	4,348.07	-1,060.26	-102.77	1,064.61	0.87	-0.68	8.98

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22C4BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,607.00	1.67	181.70	4,438.99	-1,064.07	-103.18	1,068.44	1.68	-1.65	-7.53
4,698.00	1.23	171.06	4,529.96	-1,066.36	-103.07	1,070.72	0.56	-0.48	-11.69
4,788.00	1.58	350.45	4,619.95	-1,066.09	-103.12	1,070.46	3.12	0.39	199.32
4,879.00	0.88	335.86	4,710.93	-1,064.22	-103.62	1,068.61	0.84	-0.77	-16.03
4,969.00	0.62	331.11	4,800.92	-1,063.16	-104.14	1,067.59	0.30	-0.29	-5.28
5,060.00	0.26	306.59	4,891.92	-1,062.61	-104.54	1,067.06	0.44	-0.40	-26.95
5,151.00	0.70	12.15	4,982.91	-1,061.94	-104.59	1,066.40	0.70	0.48	72.04
5,241.00	0.62	5.56	5,072.91	-1,060.92	-104.43	1,065.37	0.12	-0.09	-7.32
5,332.00	0.35	330.32	5,163.91	-1,060.19	-104.52	1,064.65	0.43	-0.30	-38.73
5,422.00	0.44	262.99	5,253.90	-1,059.99	-104.99	1,064.48	0.49	0.10	-74.81
5,513.00	0.65	234.01	5,344.90	-1,060.33	-105.76	1,064.87	0.37	0.23	-31.85
5,604.00	0.97	230.56	5,435.89	-1,061.13	-106.77	1,065.73	0.36	0.35	-3.79
5,694.00	1.06	211.23	5,525.88	-1,062.32	-107.79	1,066.99	0.39	0.10	-21.48
5,785.00	1.14	220.98	5,616.86	-1,063.73	-108.82	1,068.45	0.22	0.09	10.71
5,875.00	1.23	205.34	5,706.84	-1,065.27	-109.82	1,070.06	0.37	0.10	-17.38
5,966.00	1.14	198.92	5,797.82	-1,067.01	-110.53	1,071.84	0.18	-0.10	-7.05
6,057.00	1.67	202.44	5,888.79	-1,069.10	-111.33	1,073.97	0.59	0.58	3.87
6,147.00	1.76	196.37	5,978.75	-1,071.63	-112.22	1,076.56	0.23	0.10	-6.74
6,238.00	0.88	145.40	6,069.73	-1,073.55	-112.22	1,078.47	1.52	-0.97	-56.01
6,328.00	0.97	62.08	6,159.72	-1,073.76	-111.15	1,078.61	1.37	0.10	-92.58
6,419.00	0.88	90.90	6,250.71	-1,073.41	-109.78	1,078.18	0.51	-0.10	31.67
6,510.00	0.97	108.04	6,341.70	-1,073.66	-108.34	1,078.34	0.32	0.10	18.84
6,600.00	0.79	105.93	6,431.69	-1,074.07	-107.02	1,078.66	0.20	-0.20	-2.34
6,691.00	0.97	119.29	6,522.68	-1,074.62	-105.75	1,079.13	0.30	0.20	14.68
6,782.00	0.70	138.72	6,613.67	-1,075.41	-104.71	1,079.86	0.43	-0.30	21.35
6,872.00	1.06	138.28	6,703.66	-1,076.45	-103.79	1,080.83	0.40	0.40	-0.49
6,963.00	1.41	134.23	6,794.64	-1,077.86	-102.43	1,082.15	0.40	0.38	-4.45
7,053.00	0.53	154.63	6,884.62	-1,079.00	-101.46	1,083.24	1.04	-0.98	22.67
7,144.00	1.06	288.31	6,975.62	-1,079.12	-102.08	1,083.39	1.62	0.58	146.90
7,235.00	0.44	10.84	7,066.61	-1,078.51	-102.81	1,082.83	1.20	-0.68	90.69
7,325.00	0.26	97.85	7,156.61	-1,078.20	-102.54	1,082.50	0.55	-0.20	96.68
7,416.00	0.26	69.99	7,247.61	-1,078.16	-102.15	1,082.44	0.14	0.00	-30.62
7,506.00	0.53	144.52	7,337.61	-1,078.43	-101.71	1,082.68	0.58	0.30	82.81
7,597.00	0.88	137.49	7,428.60	-1,079.29	-101.00	1,083.49	0.40	0.38	-7.73
7,688.00	0.70	145.66	7,519.59	-1,080.26	-100.21	1,084.41	0.23	-0.20	8.98
7,778.00	0.70	123.25	7,609.59	-1,081.01	-99.44	1,085.12	0.30	0.00	-24.90
7,869.00	0.88	149.88	7,700.58	-1,081.92	-98.62	1,085.98	0.44	0.20	29.26
7,959.00	0.97	147.24	7,790.57	-1,083.16	-97.87	1,087.16	0.11	0.10	-2.93
8,050.00	1.14	150.49	7,881.55	-1,084.60	-97.00	1,088.54	0.20	0.19	3.57
8,140.00	1.14	140.91	7,971.53	-1,086.07	-96.00	1,089.95	0.21	0.00	-10.64
8,231.00	1.58	146.80	8,062.51	-1,087.82	-94.74	1,091.62	0.51	0.48	6.47
8,322.00	0.62	104.79	8,153.49	-1,089.00	-93.58	1,092.72	1.31	-1.05	-46.16
8,412.00	1.49	7.67	8,243.48	-1,087.96	-92.95	1,091.65	1.87	0.97	-107.91
8,503.00	0.97	16.20	8,334.46	-1,086.05	-92.58	1,089.72	0.60	-0.57	9.37

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22C4BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,593.00	1.49	16.73	8,424.44	-1,084.20	-92.03	1,087.83	0.58	0.58	0.59
8,684.00	1.06	38.70	8,515.41	-1,082.41	-91.16	1,085.99	0.71	-0.47	24.14
8,775.00	0.97	50.91	8,606.40	-1,081.27	-90.04	1,084.78	0.26	-0.10	13.42
8,865.00	0.88	67.88	8,696.39	-1,080.53	-88.80	1,083.97	0.32	-0.10	18.86
8,956.00	1.06	3.28	8,787.38	-1,079.42	-88.11	1,082.82	1.15	0.20	-70.99
9,046.00	0.79	346.67	8,877.37	-1,077.99	-88.20	1,081.40	0.42	-0.30	-18.46
9,137.00	0.79	319.86	8,968.36	-1,076.90	-88.75	1,080.34	0.40	0.00	-29.46
9,227.00	0.79	328.74	9,058.35	-1,075.89	-89.48	1,079.38	0.14	0.00	9.87
9,318.00	0.35	302.72	9,149.35	-1,075.21	-90.03	1,078.73	0.55	-0.48	-28.59
9,409.00	0.35	138.45	9,240.34	-1,075.27	-90.08	1,078.80	0.76	0.00	-180.52
9,499.00	0.70	121.58	9,330.34	-1,075.76	-89.43	1,079.25	0.42	0.39	-18.74
9,590.00	0.53	106.55	9,421.34	-1,076.17	-88.56	1,079.60	0.26	-0.19	-16.52
9,680.00	0.26	153.13	9,511.33	-1,076.47	-88.07	1,079.87	0.44	-0.30	51.76
9,771.00	0.97	144.25	9,602.33	-1,077.28	-87.52	1,080.65	0.78	0.78	-9.76
9,862.00	0.97	157.09	9,693.31	-1,078.61	-86.77	1,081.93	0.24	0.00	14.11
9,952.00	1.06	152.16	9,783.30	-1,080.05	-86.09	1,083.32	0.14	0.10	-5.48
10,043.00	1.06	147.07	9,874.29	-1,081.50	-85.24	1,084.72	0.10	0.00	-5.59
10,133.00	1.41	168.16	9,964.26	-1,083.29	-84.56	1,086.45	0.63	0.39	23.43
10,224.00	1.93	136.08	10,055.23	-1,085.49	-83.26	1,088.57	1.15	0.57	-35.25
10,252.00	2.20	132.74	10,083.21	-1,086.19	-82.54	1,089.23	1.06	0.96	-11.93
LAST SDI MWD PRODUCTION SURVEY									
10,311.00	2.20	132.74	10,142.17	-1,087.73	-80.88	1,090.66	0.00	0.00	0.00
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
187.00	187.00	-0.10	0.84	FIRST SDI MWD SURFACE SURVEY
2,751.00	2,637.96	-657.70	-60.94	LAST SDI MWD SURFACE SURVEY
2,795.00	2,679.46	-672.32	-61.51	FIRST SDI MWD PRODUCTION SURVEY
10,252.00	10,083.21	-1,086.19	-82.54	LAST SDI MWD PRODUCTION SURVEY
10,311.00	10,142.17	-1,087.73	-80.88	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-15N Pad
NBU 921-22C4BS

OH

Design: OH

Survey Report - Geographic

16 June, 2011

Anadarko
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22C4BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 921-15N Pad, SECTION 22 T9S R21E				
Site Position:		**Northing:**	14,540,265.88 usft	**Latitude:**	40° 1' 47.435 N
From:	Lat/Long	**Easting:**	2,049,430.74 usft	**Longitude:**	109° 32' 20.152 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.94 °

Well	NBU 921-22C4BS, 360 FSL 2153 FWL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	14,540,265.88 usft	**Latitude:**	40° 1' 47.435 N
	+E/-W	0.00 ft	**Easting:**	2,049,430.74 usft	**Longitude:**	109° 32' 20.152 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,827.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	05/12/2011	11.11	65.89	52,350

Design	OH				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	183.59	

Survey Program **Date** 06/16/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
5.00	2,751.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,795.00	10,311.00	Survey #2 MWD SDI PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,540,265.88	2,049,430.74	40° 1' 47.435 N	109° 32' 20.152 W
5.00	0.00	0.00	5.00	0.00	0.00	14,540,265.88	2,049,430.74	40° 1' 47.435 N	109° 32' 20.152 W
187.00	0.53	96.80	187.00	-0.10	0.84	14,540,265.79	2,049,431.58	40° 1' 47.434 N	109° 32' 20.141 W
FIRST SDI MWD SURFACE SURVEY									
278.00	0.88	70.17	277.99	0.09	1.91	14,540,266.00	2,049,432.65	40° 1' 47.436 N	109° 32' 20.127 W
368.00	1.06	192.86	367.98	-0.49	2.38	14,540,265.43	2,049,433.13	40° 1' 47.430 N	109° 32' 20.121 W
463.00	2.11	192.86	462.95	-3.05	1.79	14,540,262.86	2,049,432.58	40° 1' 47.405 N	109° 32' 20.129 W
554.00	3.25	196.91	553.85	-7.15	0.67	14,540,258.74	2,049,431.53	40° 1' 47.364 N	109° 32' 20.143 W
649.00	5.19	197.87	648.58	-13.82	-1.43	14,540,252.05	2,049,429.53	40° 1' 47.298 N	109° 32' 20.170 W
744.00	6.77	200.86	743.06	-23.14	-4.75	14,540,242.67	2,049,426.38	40° 1' 47.206 N	109° 32' 20.213 W
840.00	8.27	199.46	838.24	-34.94	-9.06	14,540,230.80	2,049,422.25	40° 1' 47.089 N	109° 32' 20.268 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22C4BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
940.00	10.11	194.53	936.95	-50.22	-13.66	14,540,215.45	2,049,417.91	40° 1' 46.938 N	109° 32' 20.327 W
1,034.00	11.70	189.09	1,029.25	-67.62	-17.24	14,540,198.00	2,049,414.62	40° 1' 46.766 N	109° 32' 20.373 W
1,129.00	13.19	185.39	1,122.02	-87.92	-19.78	14,540,177.65	2,049,412.41	40° 1' 46.566 N	109° 32' 20.406 W
1,224.00	15.12	185.04	1,214.13	-111.06	-21.88	14,540,154.49	2,049,410.68	40° 1' 46.337 N	109° 32' 20.433 W
1,319.00	16.18	183.99	1,305.61	-136.60	-23.89	14,540,128.91	2,049,409.09	40° 1' 46.085 N	109° 32' 20.459 W
1,415.00	17.85	182.41	1,397.40	-164.65	-25.44	14,540,100.84	2,049,408.00	40° 1' 45.807 N	109° 32' 20.479 W
1,510.00	20.14	182.23	1,487.22	-195.54	-26.69	14,540,069.93	2,049,407.26	40° 1' 45.502 N	109° 32' 20.495 W
1,606.00	20.93	182.14	1,577.12	-229.19	-27.97	14,540,036.27	2,049,406.53	40° 1' 45.169 N	109° 32' 20.511 W
1,700.00	21.54	182.32	1,664.74	-263.21	-29.30	14,540,002.23	2,049,405.76	40° 1' 44.833 N	109° 32' 20.528 W
1,795.00	22.42	184.08	1,752.83	-298.71	-31.29	14,539,966.71	2,049,404.35	40° 1' 44.482 N	109° 32' 20.554 W
1,890.00	23.21	186.62	1,840.40	-335.38	-34.74	14,539,929.99	2,049,401.51	40° 1' 44.120 N	109° 32' 20.598 W
1,984.00	23.39	187.33	1,926.74	-372.28	-39.26	14,539,893.01	2,049,397.60	40° 1' 43.755 N	109° 32' 20.656 W
2,080.00	23.39	187.86	2,014.85	-410.06	-44.30	14,539,855.16	2,049,393.18	40° 1' 43.382 N	109° 32' 20.721 W
2,175.00	23.57	186.71	2,101.98	-447.60	-49.09	14,539,817.54	2,049,389.00	40° 1' 43.010 N	109° 32' 20.783 W
2,270.00	23.48	183.90	2,189.09	-485.35	-52.60	14,539,779.74	2,049,386.11	40° 1' 42.637 N	109° 32' 20.828 W
2,365.00	22.34	181.88	2,276.60	-522.28	-54.48	14,539,742.79	2,049,384.84	40° 1' 42.272 N	109° 32' 20.852 W
2,458.00	21.19	182.49	2,362.96	-556.74	-55.79	14,539,708.31	2,049,384.09	40° 1' 41.932 N	109° 32' 20.869 W
2,547.00	20.22	182.67	2,446.22	-588.17	-57.20	14,539,676.86	2,049,383.19	40° 1' 41.621 N	109° 32' 20.887 W
2,649.00	20.05	184.08	2,541.98	-623.22	-59.27	14,539,641.78	2,049,381.70	40° 1' 41.275 N	109° 32' 20.914 W
2,751.00	19.52	181.44	2,637.96	-657.70	-60.94	14,539,607.28	2,049,380.60	40° 1' 40.934 N	109° 32' 20.935 W
LAST SDI MWD SURFACE SURVEY									
2,795.00	19.35	182.99	2,679.46	-672.32	-61.51	14,539,592.65	2,049,380.27	40° 1' 40.789 N	109° 32' 20.942 W
FIRST SDI MWD PRODUCTION SURVEY									
2,886.00	19.08	179.06	2,765.39	-702.25	-62.05	14,539,562.72	2,049,380.22	40° 1' 40.493 N	109° 32' 20.949 W
2,976.00	19.26	178.71	2,850.40	-731.80	-61.47	14,539,533.18	2,049,381.28	40° 1' 40.201 N	109° 32' 20.942 W
3,067.00	19.26	181.43	2,936.31	-761.81	-61.51	14,539,503.18	2,049,381.74	40° 1' 39.905 N	109° 32' 20.942 W
3,158.00	18.38	185.21	3,022.44	-791.10	-63.19	14,539,473.86	2,049,380.54	40° 1' 39.615 N	109° 32' 20.964 W
3,248.00	17.50	187.23	3,108.07	-818.66	-66.18	14,539,446.26	2,049,378.00	40° 1' 39.343 N	109° 32' 21.002 W
3,339.00	16.27	188.29	3,195.14	-844.85	-69.74	14,539,420.01	2,049,374.87	40° 1' 39.084 N	109° 32' 21.048 W
3,429.00	16.09	190.84	3,281.58	-869.57	-73.90	14,539,395.22	2,049,371.11	40° 1' 38.840 N	109° 32' 21.102 W
3,520.00	16.80	192.68	3,368.86	-894.79	-79.16	14,539,369.93	2,049,366.27	40° 1' 38.590 N	109° 32' 21.169 W
3,610.00	15.83	189.52	3,455.23	-919.58	-84.05	14,539,345.05	2,049,361.79	40° 1' 38.345 N	109° 32' 21.232 W
3,701.00	14.51	195.23	3,543.07	-942.83	-89.10	14,539,321.73	2,049,357.13	40° 1' 38.115 N	109° 32' 21.297 W
3,792.00	11.52	193.39	3,631.72	-962.67	-94.20	14,539,301.81	2,049,352.35	40° 1' 37.919 N	109° 32' 21.363 W
3,882.00	10.99	189.78	3,719.99	-979.87	-97.73	14,539,284.55	2,049,349.10	40° 1' 37.749 N	109° 32' 21.408 W
3,973.00	10.90	191.19	3,809.33	-996.85	-100.88	14,539,267.51	2,049,346.23	40° 1' 37.581 N	109° 32' 21.449 W
4,063.00	9.50	187.32	3,897.91	-1,012.57	-103.47	14,539,251.76	2,049,343.89	40° 1' 37.426 N	109° 32' 21.482 W
4,154.00	8.35	181.61	3,987.81	-1,026.62	-104.62	14,539,237.69	2,049,342.98	40° 1' 37.287 N	109° 32' 21.497 W
4,245.00	7.03	176.86	4,077.99	-1,038.79	-104.50	14,539,225.53	2,049,343.30	40° 1' 37.167 N	109° 32' 21.495 W
4,335.00	4.92	166.23	4,167.50	-1,048.04	-103.28	14,539,216.30	2,049,344.67	40° 1' 37.075 N	109° 32' 21.479 W
4,426.00	3.78	180.47	4,258.24	-1,054.83	-102.37	14,539,209.52	2,049,345.69	40° 1' 37.008 N	109° 32' 21.468 W
4,516.00	3.17	188.55	4,348.07	-1,060.26	-102.77	14,539,204.09	2,049,345.38	40° 1' 36.955 N	109° 32' 21.473 W
4,607.00	1.67	181.70	4,438.99	-1,064.07	-103.18	14,539,200.27	2,049,345.03	40° 1' 36.917 N	109° 32' 21.478 W
4,698.00	1.23	171.06	4,529.96	-1,066.36	-103.07	14,539,197.98	2,049,345.18	40° 1' 36.894 N	109° 32' 21.477 W
4,788.00	1.58	350.45	4,619.95	-1,066.09	-103.12	14,539,198.25	2,049,345.12	40° 1' 36.897 N	109° 32' 21.477 W
4,879.00	0.88	335.86	4,710.93	-1,064.22	-103.62	14,539,200.12	2,049,344.60	40° 1' 36.916 N	109° 32' 21.484 W
4,969.00	0.62	331.11	4,800.92	-1,063.16	-104.14	14,539,201.17	2,049,344.06	40° 1' 36.926 N	109° 32' 21.490 W
5,060.00	0.26	306.59	4,891.92	-1,062.61	-104.54	14,539,201.71	2,049,343.65	40° 1' 36.931 N	109° 32' 21.496 W
5,151.00	0.70	12.15	4,982.91	-1,061.94	-104.59	14,539,202.38	2,049,343.59	40° 1' 36.938 N	109° 32' 21.496 W
5,241.00	0.62	5.56	5,072.91	-1,060.92	-104.43	14,539,203.40	2,049,343.73	40° 1' 36.948 N	109° 32' 21.494 W
5,332.00	0.35	330.32	5,163.91	-1,060.19	-104.52	14,539,204.13	2,049,343.63	40° 1' 36.955 N	109° 32' 21.495 W
5,422.00	0.44	262.99	5,253.90	-1,059.99	-104.99	14,539,204.32	2,049,343.15	40° 1' 36.957 N	109° 32' 21.501 W
5,513.00	0.65	234.01	5,344.90	-1,060.33	-105.76	14,539,203.96	2,049,342.39	40° 1' 36.954 N	109° 32' 21.511 W
5,604.00	0.97	230.56	5,435.89	-1,061.13	-106.77	14,539,203.15	2,049,341.39	40° 1' 36.946 N	109° 32' 21.524 W
5,694.00	1.06	211.23	5,525.88	-1,062.32	-107.79	14,539,201.94	2,049,340.39	40° 1' 36.934 N	109° 32' 21.537 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22C4BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,785.00	1.14	220.98	5,616.86	-1,063.73	-108.82	14,539,200.52	2,049,339.38	40° 1' 36.920 N	109° 32' 21.551 W
5,875.00	1.23	205.34	5,706.84	-1,065.27	-109.82	14,539,198.96	2,049,338.41	40° 1' 36.905 N	109° 32' 21.564 W
5,966.00	1.14	198.92	5,797.82	-1,067.01	-110.53	14,539,197.21	2,049,337.73	40° 1' 36.888 N	109° 32' 21.573 W
6,057.00	1.67	202.44	5,888.79	-1,069.10	-111.33	14,539,195.11	2,049,336.96	40° 1' 36.867 N	109° 32' 21.583 W
6,147.00	1.76	196.37	5,978.75	-1,071.63	-112.22	14,539,192.56	2,049,336.11	40° 1' 36.842 N	109° 32' 21.594 W
6,238.00	0.88	145.40	6,069.73	-1,073.55	-112.22	14,539,190.64	2,049,336.15	40° 1' 36.823 N	109° 32' 21.594 W
6,328.00	0.97	62.08	6,159.72	-1,073.76	-111.15	14,539,190.45	2,049,337.22	40° 1' 36.821 N	109° 32' 21.581 W
6,419.00	0.88	90.90	6,250.71	-1,073.41	-109.78	14,539,190.82	2,049,338.59	40° 1' 36.825 N	109° 32' 21.563 W
6,510.00	0.97	108.04	6,341.70	-1,073.66	-108.34	14,539,190.60	2,049,340.02	40° 1' 36.822 N	109° 32' 21.545 W
6,600.00	0.79	105.93	6,431.69	-1,074.07	-107.02	14,539,190.21	2,049,341.35	40° 1' 36.818 N	109° 32' 21.528 W
6,691.00	0.97	119.29	6,522.68	-1,074.62	-105.75	14,539,189.68	2,049,342.64	40° 1' 36.813 N	109° 32' 21.511 W
6,782.00	0.70	138.72	6,613.67	-1,075.41	-104.71	14,539,188.91	2,049,343.69	40° 1' 36.805 N	109° 32' 21.498 W
6,872.00	1.06	138.28	6,703.66	-1,076.45	-103.79	14,539,187.89	2,049,344.62	40° 1' 36.795 N	109° 32' 21.486 W
6,963.00	1.41	134.23	6,794.64	-1,077.86	-102.43	14,539,186.50	2,049,346.01	40° 1' 36.781 N	109° 32' 21.469 W
7,053.00	0.53	154.63	6,884.62	-1,079.00	-101.46	14,539,185.37	2,049,347.00	40° 1' 36.769 N	109° 32' 21.456 W
7,144.00	1.06	288.31	6,975.62	-1,079.12	-102.08	14,539,185.24	2,049,346.38	40° 1' 36.768 N	109° 32' 21.464 W
7,235.00	0.44	10.84	7,066.61	-1,078.51	-102.81	14,539,185.84	2,049,345.64	40° 1' 36.774 N	109° 32' 21.473 W
7,325.00	0.26	97.85	7,156.61	-1,078.20	-102.54	14,539,186.15	2,049,345.90	40° 1' 36.777 N	109° 32' 21.470 W
7,416.00	0.26	69.99	7,247.61	-1,078.16	-102.15	14,539,186.20	2,049,346.30	40° 1' 36.778 N	109° 32' 21.465 W
7,506.00	0.53	144.52	7,337.61	-1,078.43	-101.71	14,539,185.94	2,049,346.73	40° 1' 36.775 N	109° 32' 21.459 W
7,597.00	0.88	137.49	7,428.60	-1,079.29	-101.00	14,539,185.09	2,049,347.46	40° 1' 36.767 N	109° 32' 21.450 W
7,688.00	0.70	145.66	7,519.59	-1,080.26	-100.21	14,539,184.13	2,049,348.27	40° 1' 36.757 N	109° 32' 21.440 W
7,778.00	0.70	123.25	7,609.59	-1,081.01	-99.44	14,539,183.39	2,049,349.05	40° 1' 36.749 N	109° 32' 21.430 W
7,869.00	0.88	149.88	7,700.58	-1,081.92	-98.62	14,539,182.49	2,049,349.88	40° 1' 36.741 N	109° 32' 21.420 W
7,959.00	0.97	147.24	7,790.57	-1,083.16	-97.87	14,539,181.27	2,049,350.66	40° 1' 36.728 N	109° 32' 21.410 W
8,050.00	1.14	150.49	7,881.55	-1,084.60	-97.00	14,539,179.85	2,049,351.54	40° 1' 36.714 N	109° 32' 21.399 W
8,140.00	1.14	140.91	7,971.53	-1,086.07	-96.00	14,539,178.39	2,049,352.57	40° 1' 36.700 N	109° 32' 21.386 W
8,231.00	1.58	146.80	8,062.51	-1,087.82	-94.74	14,539,176.66	2,049,353.86	40° 1' 36.682 N	109° 32' 21.370 W
8,322.00	0.62	104.79	8,153.49	-1,089.00	-93.58	14,539,175.50	2,049,355.04	40° 1' 36.671 N	109° 32' 21.355 W
8,412.00	1.49	7.67	8,243.48	-1,087.96	-92.95	14,539,176.55	2,049,355.65	40° 1' 36.681 N	109° 32' 21.347 W
8,503.00	0.97	16.20	8,334.46	-1,086.05	-92.58	14,539,178.47	2,049,355.99	40° 1' 36.700 N	109° 32' 21.342 W
8,593.00	1.49	16.73	8,424.44	-1,084.20	-92.03	14,539,180.33	2,049,356.51	40° 1' 36.718 N	109° 32' 21.335 W
8,684.00	1.06	38.70	8,515.41	-1,082.41	-91.16	14,539,182.13	2,049,357.35	40° 1' 36.736 N	109° 32' 21.324 W
8,775.00	0.97	50.91	8,606.40	-1,081.27	-90.04	14,539,183.29	2,049,358.46	40° 1' 36.747 N	109° 32' 21.309 W
8,865.00	0.88	67.88	8,696.39	-1,080.53	-88.80	14,539,184.05	2,049,359.67	40° 1' 36.754 N	109° 32' 21.293 W
8,956.00	1.06	3.28	8,787.38	-1,079.42	-88.11	14,539,185.17	2,049,360.35	40° 1' 36.765 N	109° 32' 21.284 W
9,046.00	0.79	346.67	8,877.37	-1,077.99	-88.20	14,539,186.60	2,049,360.23	40° 1' 36.779 N	109° 32' 21.286 W
9,137.00	0.79	319.86	8,968.36	-1,076.90	-88.75	14,539,187.68	2,049,359.67	40° 1' 36.790 N	109° 32' 21.293 W
9,227.00	0.79	328.74	9,058.35	-1,075.89	-89.48	14,539,188.67	2,049,358.93	40° 1' 36.800 N	109° 32' 21.302 W
9,318.00	0.35	302.72	9,149.35	-1,075.21	-90.03	14,539,189.35	2,049,358.36	40° 1' 36.807 N	109° 32' 21.309 W
9,409.00	0.35	138.45	9,240.34	-1,075.27	-90.08	14,539,189.29	2,049,358.31	40° 1' 36.806 N	109° 32' 21.310 W
9,499.00	0.70	121.58	9,330.34	-1,075.76	-89.43	14,539,188.81	2,049,358.97	40° 1' 36.801 N	109° 32' 21.301 W
9,590.00	0.53	106.55	9,421.34	-1,076.17	-88.56	14,539,188.41	2,049,359.85	40° 1' 36.797 N	109° 32' 21.290 W
9,680.00	0.26	153.13	9,511.33	-1,076.47	-88.07	14,539,188.12	2,049,360.35	40° 1' 36.794 N	109° 32' 21.284 W
9,771.00	0.97	144.25	9,602.33	-1,077.28	-87.52	14,539,187.32	2,049,360.90	40° 1' 36.786 N	109° 32' 21.277 W
9,862.00	0.97	157.09	9,693.31	-1,078.61	-86.77	14,539,186.00	2,049,361.68	40° 1' 36.773 N	109° 32' 21.267 W
9,952.00	1.06	152.16	9,783.30	-1,080.05	-86.09	14,539,184.57	2,049,362.38	40° 1' 36.759 N	109° 32' 21.258 W
10,043.00	1.06	147.07	9,874.29	-1,081.50	-85.24	14,539,183.13	2,049,363.26	40° 1' 36.745 N	109° 32' 21.247 W
10,133.00	1.41	168.16	9,964.26	-1,083.29	-84.56	14,539,181.36	2,049,363.97	40° 1' 36.727 N	109° 32' 21.239 W
10,224.00	1.93	136.08	10,055.23	-1,085.49	-83.26	14,539,179.19	2,049,365.30	40° 1' 36.705 N	109° 32' 21.222 W
10,252.00	2.20	132.74	10,083.21	-1,086.19	-82.54	14,539,178.49	2,049,366.03	40° 1' 36.698 N	109° 32' 21.213 W
LAST SDI MWD PRODUCTION SURVEY									
10,311.00	2.20	132.74	10,142.17	-1,087.73	-80.88	14,539,176.98	2,049,367.72	40° 1' 36.683 N	109° 32' 21.191 W
SDI PROJECTION TO TD									

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22C4BS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22C4BS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
187.00	187.00	-0.10	0.84	FIRST SDI MWD SURFACE SURVEY
2,751.00	2,637.96	-657.70	-60.94	LAST SDI MWD SURFACE SURVEY
2,795.00	2,679.46	-672.32	-61.51	FIRST SDI MWD PRODUCTION SURVEY
10,252.00	10,083.21	-1,086.19	-82.54	LAST SDI MWD PRODUCTION SURVEY
10,311.00	10,142.17	-1,087.73	-80.88	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____